PSYCHOLOGICAL ABSTRACTS

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GENERAL

(incl. Statistics)

5380. **Alverdes, F. Organisation, Anpassung und Ganzheit.** (Organization, adaptation and totality.) *Z. Rassenk.*, 1937, **6**, 13–20.—*P. L. Krieger* (Leipzig).

5381. **Andreyev, L. A. The great teacher and master of science—Ivan Petrovich Pavlov.** *Sci. Mon., N. Y.*, 1937, **45**, 159–171.—An essay which attempts to present the living image of Pavlov as a scientist and a great teacher. The particular emphasis is on an analysis of his genius and his methods of work.—*O. P. Lester* (Buffalo).

5382. **[Anon.] Science bibliography of China: section of psychology.** Nanking: Nat. Res. Council, Acad. Sinica, 1936. Pp. 21.—This section of the science bibliography of China lists 197 and 32 titles of psychological literature published respectively in the years up to 1934 inclusive and in the year 1935, by Chinese authors; the articles were written in either Chinese or a European language, and appeared in journals in China or abroad.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5383. **Bagdasar, N. Cunoasterea noologica dupa Dilthey.** (Noological knowledge according to Dilthey.) *Arhiva pentru Sti. Ref. soc.*, 1936, **14**, 545–564.—A critical review of Dilthey's conception of psychology as a spiritual science, with principles and methods entirely opposed to those of the natural sciences. Spranger's new contributions are also considered.—*N. Margineanu* (Cluj, Rumania).

5384. **Barbu, Z. S. Freud.** *Freamatul Scoalei*, 1936, **2**, 245–250.—A short review of Freud's life and work on the occasion of his eightieth birthday.—*N. Margineanu* (Cluj, Rumania).

5385. **Bartlett, M. S. Note on the development of correlations among genetic components of ability.** *Ann. Eugen., Camb.*, 1937, **7**, 299–302.—An application of the formulae developed by Wright for measuring equilibrium to intercorrelations among genetic components of mental traits. The intercorrelations are considered in relation to factor theories of mental ability.—*J. W. Dunlap* (Rochester).

5386. **Baten, W. D. A formula for finding the skewness of the combination of two or more samples.** *J. Amer. statist. Ass.*, 1935, **30**, 95–98.—"Given the mean, standard deviation and skewness of two samples of n_1 and n_2 variates respectively, to find the skewness of the sample made up of the items in both of the given samples." The author develops a formula $a_{3:2} = \mu_{3:2}/\sigma_2^3$ for the case of two samples, and then extends it to the general case of any number of samples.—*E. E. Cureton* (Alabama Polytechnic Institute).

5387. **Bennitt, C. The real use of the unconscious.** New York: Dial Press, 1937. Pp. 380. $3.00.—This book is in purpose a philosophic study of the nature and functioning of the unconscious in relation to the conscious and is directed to the development of a new philosophy in which "the Meaning and the Actuality of existence are awarely fused—that Way do we avoid a fate and achieve a destiny." The book is divided into three parts, containing 13 chapters, some of which are, "The Unconscious as our Symbolic Side," "Meaning and Actuality in Dream Interpretation," "The Hierarchy of Psychic Conception," "Man and Woman," "Christian Life Pattern—and Beyond," "Free Will, Determinism and The Spiritual Line." An index is given.—*M. H. Erickson* (Eloise Hospital).

5388. **Beritov, I. [I. P. Pavlov and his scientific legacy.]** *Trans. Beritov Inst., Tiflis*, 1937, No. 3, 1–20.—*R. R. Willoughby* (Brown).

5389. **Bleuler, E. Mnemistische Biologie und Psychologie.** (Mnemistic biology and psychology.) *Psychiat.-neurol. Wschr.*, 1935, **37**, 571; 583; 596.—*P. L. Krieger* (Leipzig).

5390. **Buel, J. A simple, inexpensive finger maze for experimental and classroom use.** *J. gen. Psychol.*, 1937, **17**, 192.—The maze is made by stretching string over thumb tacks which are arranged on the baseboard. The maze can be readily duplicated in the manner described in the paper.—*H. Schlosberg* (Brown).

5391. **Camp, B. H. Suggested problems for mathematical research.** *J. Amer. statist. Ass.*, 1935, **30**, 257–262.—The author lists and discusses briefly thirteen problems suggested by members of the American Statistical Association.—*E. E. Cureton* (Alabama Polytechnic Institute).

5392. **Chiba, T. Isiki-muisiki no mondai.** (Problems of consciousness and unconsciousness.) Tokyo: Tôen-Syobô, 1935. Pp. 400. Yen 3,50.—This work contains 23 essays which the author has published in the past thirty years. Most of the essays deal with the problems of the conscious and unconscious mind. The latter half of the volume is especially concerned with the author's so-called "Eigenbewusstsein."—*T. Chiba* (Sendai).

5393. **Ciobanu, A. Un aspect al psihologiei dupa Pavlov.** (Pavlov's contribution to psychology.) *Freamatul Scoalei*, 1936, **2**, 180–186.—A short review of Pavlov's reflexology and of its importance in modern psychology.—*N. Margineanu* (Cluj, Rumania).

5394. **Collier, R. M. A technique for the kymographic registration of certain associated voluntary movements.** *J. exp. Psychol.*, 1937, **21**, 181–193.—An apparatus is described which permits graphic registration of voluntary movement patterns expressed through forearm rotation. Typical movement patterns from normal and neuropathological cases are illustrated and described. These records exhibit characteristic differences between normal and pathological cases and among the pathological cases themselves. Bilateral modifications of voluntary movement and contralateral effects of a passively induced tremor are illustrated in cases of parkinsonism. Special advantages of the technique are pointed out for studying conditions associated with motility rates, fatigue, forearm muscular tension, and bilaterally paired movements.—*H. W. Karn* (Pittsburgh).

5395. **Croxton, F. E. Workbook in applied general statistics.** New York: Prentice-Hall, 1937. Pp. vii + 233. $1.95.—This workbook is designed for the use of the general student of statistics and will accompany a forthcoming textbook by the author. It is divided into 30 exercises. The chief topics to be prepared are: graphic presentation; frequency distribution, mean, median, mode, etc.; the normal curve; time series; and correlation. Tables of ordinates and areas of the normal curve are included. 86 pages of blank tabular and graphic forms are attached.—*F. A. Mote, Jr.* (Brown).

5396. **Dantzig, T. Aspects of science.** New York: Macmillan, 1937. Pp. 285. $3.00.—This is a popular account of some of the more recent developments in scientific and mathematical thinking. The first chapter deals with the idea of cause and effect and the next two with the "scientific revolution" brought about by the concept of relativity. On the argument that most of our ideas concerning number, space, etc., have required revision, the author gives in the last eight chapters a modern mathematician's approach to such problems as geometry, models in science, infinity, rigid standards, and the metaphysical significance of the modern point of view with respect to scientific reasoning. He concludes with a statement of the mathematical method in science.—*C. H. Graham* (Brown).

5397. **Day, B., & Fisher, R. A. The comparison of variability in populations having unequal means. An example of the analysis of covariance with multiple dependent and independent variates.** *Ann. Eugen., Camb.*, 1937, **7**, 333–348.—This paper presents methods for comparing variabilities of populations having different values for the means. The method used is the analysis of variance and of the covariances. The numerical examples are based on ecological data.—*J. W. Dunlap* (Rochester).

5398. **Dupréel, E. Vers une théorie probabiliste de la vie et de la connaissance.** (Toward a probability theory of life and knowledge.) *J. Psychol. norm. path.*, 1937, **34**, 5–25.—The idea of probability is of growing importance in science and in philosophy. The author attempts to apply the properties of probability to life and to mind. However, he is not concerned with numerical probability, but with what he calls ordinal probability. Ordinal probability is the application, for scientific ends, of the usual opposition of probable and improbable. It answers the question, "Given two alternatives one of which excludes the other, which is the more probable?"—*R. E. Perl* (New York City).

5399. **Enlow, E. R. Statistics in education and psychology.** New York: Prentice-Hall, 1937. Pp. ix + 180. $2.75.—This book is designed to aid professional educators and psychologists who need to consult authorities and mathematical tables beyond those given in the customary one or two courses in statistics. Its 8 chapters are: the frequency distribution, measures of central tendency, measures of dispersion, percentiles, probability and the normal curve, correlation, partial and multiple correlation, and errors in statistical work. A bibliography, glossary of important symbols, and mathematical tables are included.—*F. A. Mote, Jr.* (Brown).

5400. **Evans, D. L., & Gamertsfelder, W. S. Logic: theoretical and applied.** Garden City, N. Y.: Doubleday, Doran, 1937. Pp. xiii + 482. $2.50.—This is a general introductory textbook, divided into four parts: the nature and value of reflective thought, the forms and purposes of deduction, the meaning and scope of induction, and the application of logical principles. The treatment avoids controversial matters, and exercises are provided; certain sections are designated as supplementary reading.—*R. R. Willoughby* (Brown).

5401. **Ferree, C. E., & Rand, G. A multiple-exposure tachistoscope.** *J. exp. Psychol.*, 1937, **21**, 240–259.—This paper is largely devoted to a detailed description of an instrument for measuring the dynamic speed of vision, speed of accommodation, and ocular fatigue and recovery. The apparatus consists essentially of a multiple-exposure rotary tachistoscope comprising a driving mechanism, four sectored disks so arranged and of such sizes as to expose in immediate succession, in turning, a near test object on the left, a far test object in the median plane, and a near test object on the right.—*H. W. Karn* (Pittsburgh).

5402. **Ferree, C. E., & Rand, G. A device for changing the value of the open sector in sectored disks.** *J. gen. Psychol.*, 1937, **17**, 192–195.—The sectored disk is widely used to control a beam of light. Usually the movable portion of the disk is fastened by a nut, which makes adjustment difficult and inaccurate. The writers describe the use of a worm and cog gear, which overcomes the difficulty. They also describe a single-exposure rotary tachistoscope which uses this principle.—*H. Schlosberg* (Brown).

5403. **Fisher, R. A. Professor Karl Pearson and the method of moments.** *Ann. Eugen., Camb.*, 1937, **7**, 303–318.—A critical examination of Pearson's method of moments in fitting curves contrasted with Fisher's method of maximum likelihood.

Finally, the place of Pearsonian methods in teaching statistics is dealt with, together with a list of topics that should be emphasized.—*J. W. Dunlap* (Rochester).

5404. **Fisher, R. A. On a point raised by M. S. Bartlett on fiducial probability.** *Ann. Eugen., Camb.*, 1937, **7**, 370–375.—An examination of Bartlett's criticism of Behrens' test of significance, pointing out the inconsistency of assuming for the unknown variances both (1) fiducial distributions in accordance with the samples observed, and (2) values fixed from sample to sample. An alternative test of significance is proposed.—*J. W. Dunlap* (Rochester).

5405. **Foley, J. P., Jr. Concerning psychological systems.** *J. gen. Psychol.*, 1937, **17**, 161–164.—The writer objects to an eclectic view, and suggests that some one system is necessary. Each prospective system should be rigorously tested to see whether it fits the facts we have at present and predicts new facts.—*H. Schlosberg* (Brown).

5406. **Georgescu-Roegen, N. S. Metoda statistica.** (Statistical method.) Rumania: Institutul de Statistica a Statului, 1933, No. 3. Pp. 531. Lei: 300.—A textbook for the statistical method and its applications to social sciences. (1) Variables, units, statistical series, graphic representation. (2) Typical values, dispersion, normal distribution, goodness of fit, laws of probability, homograde series, statistical comparison. (3) Association, contingency, regression, correlation, other aspects of correlation, partial and multiple correlation. (4) Temporal series, covariation, index numbers.—*N. Margineanu* (Cluj, Rumania).

5407. **Girshick, M. A. Principal components.** *J. Amer. statist. Ass.*, 1936, **31**, 519–528.—Hotelling's method of principal components can be derived without the assumption that the diagonal values are all unity and without the assumption that the number of factors equals the number of tests. A simplified derivation employing the second assumption is given. The author proves that the first principal component is that linear function of the variates which has least variance resulting from errors of measurement (assuming equal reliabilities for all tests), and among all linear functions of the variates uncorrelated with the first component, the second component has least variance resulting from errors of measurement, etc. He also shows that of all linear functions of the variates, the first principal component has the greatest mean-square correlation with the tests, the second component the next greatest, etc.; and that the principal components are maximum likelihood statistics and therefore subject to smaller sampling errors than Thurstone's centroid factors.—*E. E. Cureton* (Alabama Polytechnic Institute).

5408. **Holzinger, K. J. Note on Professor Kelley's method.** *J. Amer. statist. Ass.*, 1937, **32**, 360–362.—"If the original variables are standardized and unit variances are introduced in the diagonals of the matrix of covariances, the latter reduce to correlations. Professor Kelley's method can indeed be applied to such a matrix, but the solution will be inconsistent with that obtained by employing variances and covariances and subsequently standardizing all the variables, unless all original variances are equal." A two-variable example is worked out in detail to illustrate this point.—*E. E. Cureton* (Alabama Polytechnic Institute).

5409. **Hsiao, H. H. [General applied psychology.]** Shanghai: Commercial Press, 1937. Pp. 237. $.90 mex.—This book describes and discusses psychological principles as applied to the major problems of human behavior and effective methods for their solution. Part I deals in 5 chapters with the basic factors that control human behavior, including a discussion of the law of drives and resistances, the influence of external stimuli, internal conditions, drugs and suggestion upon human behavior. Part II deals in 5 chapters with the various ways of promoting self-efficiency, including ways of promoting learning efficiency, social adaptability, and physiological efficiency, and of preventing and curing nervous breakdown and choosing a suitable vocation. Part III deals in 5 chapters with various ways of controlling other people's behavior, and discusses how to promote and resist propaganda, how to promote the effect of public speaking, how to make writings and arts appealing, and how to select good personnel. Part IV deals in 6 chapters with the specific problems of psychology in the various aspects of life, covering applications of psychology to education, industry, medicine, law, politics, and military affairs.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5410. **Jeffress, L. A. An ink-recording galvanic skin reaction apparatus.** *J. gen. Psychol.*, 1937, **17**, 184–189.—This is a modification of the scheme proposed by Davis. A vacuum tube is arranged to pass a constant current through the subject. The voltage drop is used to bias a second tube, thus controlling an alternating current. The A.C. is amplified and operates a recording voltmeter. Details of the construction and operation are given, and the advantages of the device are discussed.—*H. Schlosberg* (Brown).

5411. **Jeffress, L. A. A laboratory sound-truck.** *J. gen. Psychol.*, 1937, **17**, 189–191.—The writer describes a cafeteria dish truck, carrying amplifier, speaker, batteries, charger, phonograph turntable and pick-up, oscillograph, oscillator, stroboscope, microphone, and galvanic skin reaction recorder.—*H. Schlosberg* (Brown).

5412. **Keller, F. S. The definition of psychology.** New York: Appleton-Century, 1937. Pp. 111. $1.00.—The author presents an analysis of the major systematic points of view for the benefit of the elementary student. The chapter headings are as follows: history of the problem; the founding of modern psychology; Titchener and structuralism; America and functionalism; Watson and behaviorism; Germany and Gestalt; and finally the problem of definition. Contemporary psychologists in

America are little inclined to commit themselves to any of the above systematic positions; but the author notes the following characteristics in their work: increasing objectivity, less concern with physiology, increased attention to the durational or temporal organizations of behavior, increased concern with the genetic and comparative approach, and an emphasis on individual differences.—*W. S. Hunter* (Brown).

5413. **Kinder, E. F. Report of the eighth annual meeting of the Association of Consulting Psychologists.** *J. consult. Psychol.*, 1937, **1**, 61–63.—*F. A. Mote, Jr.* (Brown).

5414. **Kline, L. W. Apparatus for observing the formation of eye-hand coordination.** *J. gen. Psychol.*, 1937, **17**, 181–184.—The apparatus is a special paddle with nine holes in it, and a ball. The task is to catch the ball in each of the holes on successive trials. The results obtained are analyzed in terms of the difficulty of each hole, the variations from subject to subject, and the methods used. The problem shows certain similarities and differences when compared to mirror-tracing.—*H. Schlosberg* (Brown).

5415. **Kuo, Z. Y. Prolegomena to praxiology.** *J. Psychol.*, 1937, **4**, 1–22.—This paper, a brief summary of the introductory chapters of a forthcoming book (*Principles of Praxiology*), presents praxiology as a discipline which will attempt to complete the revolution of psychology begun by behaviorism. The subject matter of praxiology is the ontogeny and physiology of behavior. Its laws and principles are those of physics. Its methods are experimental and quantitative, and introspection, including all forms of report, has no place. Neither is the human adult considered a useful subject; only animals and children are suitable. Praxiology also aims to re-examine every concept employed in psychology. Such concepts as purpose, motivation, drive, learning, preparatory responses, etc., considered to be blinds for ignorance, are to be discarded for such terms as intensity, threshold, summation, reinforcement, combination, interference, supplementary effects, after-effects, with stimulus and response as the central assumption. The faith is affirmed that all behavior may be explained by the laws and principles of physics—that only a consistent monism can endure and be useful in science.—*J. McV. Hunt* (Brown).

5416. **Lei, C. T. A portable grasping apparatus for rats and the method of operation.** *Chin. J. Psychol.*, 1937, **1**, 265–269.—A simple apparatus was devised which easily induces the grasping response of the white rat and automatically records its duration. Construction of the apparatus and its method of operation are detailed. The whole outfit, including a time-piece, a key, and a commutator, is shown in a plate. It is built into a portable case 18″ × 10″ × 16″.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5417. **Masson-Oursel, P. La psychologie contemporaine occidentale et les conditions d'intelligence de la pensée indienne.** (Contemporary occidental psychology and the conditions for understanding Indian thought.) *J. Psychol. norm. path.*, 1937, **34**, 152–154.—It is our rationalism, so important since Galileo, that makes it difficult for us to understand the oriental mentality. However, the development since Charcot of pathological psychology and the creation of a study of inferior and exotic mentalities have given us new means for the study of Indian accomplishments. Like Bergson and Freud, Marcel Proust has introduced us to a new understanding of Indian things. Finally, the psychology of behavior has put us in position to understand Indian effort, which is neither bodily nor spiritual but of the whole individual.—*R. E. Perl* (New York City).

5418. **McIntyre, F. Automatic checks in correlation analysis.** *J. Amer. statist. Ass.*, 1937, **32**, 119–123.—A systematic outline of complete checks on all the basic statistical operations of multivariate analysis, from the sums of values, sums of squares, and sums of products up to and including all the zero-order correlation coefficients, is presented. The derivations (which require only simple algebra) are all given also.—*E. E. Cureton* (Alabama Polytechnic Institute).

5419. **Morse, J. W. Geometric presentation of correlation.** *J. Amer. statist. Ass.*, 1937, **32**, 364–365.—The standard deviation of a "dependent" variate, the portion of it associated with one or more "independent" variates, and the residual standard deviation can be represented by the hypotenuse and the legs of a right triangle inscribed in a semi-circle. The analysis of variance is equivalent to the Pythagorean theorem. The cosine of the angle between the hypotenuse and the leg which represents the associated variance is the correlation coefficient. This graphic method of analysis is suggested as a method of explaining the meaning of correlation analyses to laymen.—*E. E. Cureton* (Alabama Polytechnic Institute).

5420. **Muster, D. Corelatia, o metoda simpla, precisa, intuitiva si generala pentru calculul coeficientului de corelatie.** (Correlation, a simple and precise method for computing correlation coefficients.) *J. Psihoteh.*, 1937, **1**, 72–80.—A new method for computing correlation coefficients is proposed. It is based upon percentages and requires very little computation. Its precision is not quite satisfactory, but in some cases it might be used as an indication of the correlation and as an approximate estimate of its degree.—*N. Margineanu* (Cluj, Rumania).

5421. **Norton, H. W. Use of scores in an exact test of significance in a discontinuous distribution.** *Ann. Eugen., Camb.*, 1937, **7**, 349–354.—In testing discontinuous distributions for significance in meeting Fisher's null hypothesis certain information is discarded. Norton proposes a method of scoring partial success in such distributions and tests of significance.—*J. W. Dunlap* (Rochester).

5422. **Obato, J., & Kobayashi, R. A direct-reading pitch recorder and its applications to music and speech.** *J. acoust. Soc. Amer.*, 1937, **9**, 156–161.—"An electrical arrangement was devised, by means of which rapid variations in pitch with time, such as occur in music or speech, could be directly recorded, even in detail."—*S. S. Stevens* (Harvard).

5423. **Ohwaki, Y. Lipps, Sinrigaku genron.** (Japanese translation of the *Leitfaden der Psychologie* of Th. Lipps, 3rd ed.) Tokyo: Iwanami-shoten. 1934. Pp. 540. Yen 0,80.— *Y. Ohwaki* (Sendai).

5424. **Ricker, W. E. The concept of confidence or fiducial limits applied to the Poisson frequency distribution.** *J. Amer. statist. Ass.*, 1937, **32**, 349–356.—If the probability of occurrence of an individual with a given characteristic is small, so that the number x of such individuals in a sample of n is also small ($x/n = .05$, or better, $x/n = .01$), then the frequency distribution of x in successive samples of n will be the Poisson distribution. Fiducial limits for m (the expected value of x/n as the number of samples increases indefinitely) are tabulated at the usual .05 and .01 values for values of x ranging from 0 to 50, and an approximation method suggested by E. S. Pearson is described for cases where x exceeds 50.—*E. E. Cureton* (Alabama Polytechnic Institute).

5425. **Rider, P. R. Recent progress in statistical method.** *J. Amer. statist. Ass.*, 1935, **30**, 58–88.—A review of papers in the field of theoretical and mathematical statistics for 1933 and the early part of 1934, with some attention to certain earlier papers. The author discusses statistical inference and the testing of hypotheses, sampling distributions of statistical functions of moments and semi-invariants, and various other miscellaneous matters. A bibliography of 177 titles is appended.—*E. E. Cureton* (Alabama Polytechnic Institute).

5426. **Shen, E. Note on the shrinkage of the multiple correlation coefficient.** *Chin. J. Psychol.*, 1936, **1**, 128–129.—A new formula for determining the shrinkage of the multiple correlation coefficient is derived and presented:

$$R^2 = 1 - \frac{1 - r^2}{1 - \frac{m - 2}{N - m}} = \frac{(N - 2)\, r^2 - (m - 2)}{N - m}$$

This formula gives an estimate of shrinkage:

$$r^2 - R^2 = \frac{(m - 2)\,(1 - r^2)}{N - m}$$

Whereas Smith's formula would yield:

$$r^2 - R^2 = \frac{m\,(1 - r^2)}{N - m}$$

Thus the latter seems to overestimate shrinkage to the extent of $2\,(1 - r^2)\,(N - m)$. From either of these two formulas may be determined the minimal significant increase in the obtained correlation below which the introduction of an additional variable would be worse than useless:

$$r^2_{1\cdot 2\,3\cdots m\,(m+1)} - r^2_{1\cdot 2\,3\cdots m} > \frac{1 - r^2}{N - m}$$

—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5427. **Snedecor, G. W. The improvement of statistical techniques in biology.** *J. Amer. statist. Ass.*, 1936, **31**, 690–701.—A review of recent advances in statistical method, illustrated with examples from the fields of biology and agriculture. The paper treats: the design of plot experiments, the theory of confounding, degrees of freedom, correlation and causation, analysis of covariance, factor theory, and the analysis of enumeration data by means of the chi-square test.—*E. E. Cureton* (Alabama Polytechnic Institute).

5428. **Stouffer, S. A. Evaluating the effect of inadequately measured variables in partial correlation analysis.** *J. Amer. statist. Ass.*, 1936, **31**, 348–360.—The ordinary formulas for partial and multiple correlation assume that all variables are perfectly reliable and valid. New formulas are developed for the case of a criterion and two "independent" variables, for dealing with problems in which one or more of the variables have known reliabilities less than unity.—*E. E. Cureton* (Alabama Polytechnic Institute).

5429. **Susukita, T. Seimei-sinrigaku.** (Life-psychology.) Tokyo: Tôen-Syobô, 1935. Pp. 278. Yen 2,50.—The author considers the standpoints of Avenarius, Müller-Freienfels and Driesch, and also the relations among them.—*T. Chiba* (Sendai).

5430. **Waugh, F. V. A simplified method of determining multiple regression constants.** *J. Amer. statist. Ass.*, 1935, **30**, 694–700.—The author describes a modification of Horst's method for obtaining multiple regression constants and their standard errors. This modification consists in computing by the Doolittle method the values P_{ij} (equal to R_{ij}/R, where R is the determinant of all the correlation coefficients r_{ij} and R_{ij} is the cofactor of r_{ij} in R, instead of the cofactors R_{ij}. This change is shown to shorten the amount of computational labor appreciably.—*E. E. Cureton* (Alabama Polytechnic Institute).

5431. **Waugh, F. V. The analysis of regression in subsets of variables.** *J. Amer. statist. Ass.*, 1936, **31**, 729–730.—In an earlier paper (A simplified method of determining multiple regression constants, *J. Amer. statist. Ass.*, 1935, **30**, 694–700) the author outlined a method for computing all the usual measures of regression, partial and multiple correlation, and standard errors. The present note describes an extension of the system whereby it is possible to compute these measures for any subset of variables with a minimum of additional computational labor.—*E. E. Cureton* (Alabama Polytechnic Institute).

5432. **Whitaker, W. L. A method for studying environmental choices of laboratory animals.** *Science*, 1937, **86**, 314.—For studying the light and dark preferences of small animals the author built a two-compartment living cage suspended at two points by small springs from a frame surrounding the whole cage. Near the spring on the dark-compartment end of the apparatus a string to a heart lever was fixed, and the same was done for the light-compartment end. By these any movement of the animal from one compartment to the other could be recorded on a smoked-drum kymograph for a period of observation as long as desired. A drawing is given.—*F. A. Mote, Jr.* (Brown).

5433. **Wilks, S. S. Test criteria for statistical hypotheses involving several variables.** *J. Amer. statist. Ass.*, 1935, **30**, 549–560.—"Without going into the technical details of their derivation we have discussed criteria of the Neyman-Pearson likelihood type for the following hypotheses which arise in the analysis of normal multivariate data: (1) That a sample is from a normal population with specified means (in several variables). (2) That two or more samples are from populations having a common system of: (a) means; (b) variances and covariances; (c) means, variances and covariances. (3) That several sets of variates are mutually independent. Test criteria appropriate for certain extensions of the analysis of variance to several variables are considered." Tests of significance are discussed by the author in each case.—*E. E. Cureton* (Alabama Polytechnic Institute).

5434. **Wong, Y. K. On the elimination of variables in multiple correlation.** *J. Amer. statist. Ass.*, 1937, **32**, 357–360.—A method based only on the elementary algebraic operations for performing eliminations in multiple correlation and regression is described and illustrated.—*E. E. Cureton* (Alabama Polytechnic Institute).

5435. **Wood, L. Philosophy and temperament.** *J. Phil.*, 1937, **34**, 477–489.—Is a man's philosophy a function of his personality and temperament? Though categories of psychoanalysts in regard to temperament adequately describe some philosophers, most are well-balanced men in whom other factors than temperament are also important. An introvert, provided there are no counteracting influences, will tend to embrace an idealistic philosophy; an extravert will be predisposed to realism, naturalism, or materialism; a synoptic or executive mind toward monism and absolutism; a "spatial imagist" toward a static philosophy; a "verbal imagist" toward an abstract philosophy; and a "sensual imagist" toward a concrete empiricism. Temperament, we learn from biographies of philosophers, is one among a variety of factors, the product of which is a completed system of philosophy.—*J. G. Miller* (Harvard).

5436. **Woodrow, H. Two quantitative laws relating to goodness of performance.** *J. Psychol.*, 1937, **4**, 139–159.—This study, part of an attack on the general problem of the equation expressing the goodness of a performance in terms of functions of the total of its conditions, tested goodness of response by a new application of absolute scaling. Using time of reaction to light, the effect of changing the preparatory interval was measured at five widely different levels of intensity. Goodness values obtained by scaling fit the formula $G = a - b \log t$, in which G represents goodness of response and t is reaction-time. When goodness values were calculated by this formula, the effect of changing from regular to irregular preparatory intervals remained constant at each of the widely different stimulus intensities. This fact is expressed in a second law: $G_a - G_b = k$. "It is shown that entirely different laws are obtained when raw scores are used in place of scaled scores, and that a law of such broad applicability as that of the summative relation between conditions of goodness of performance could not have been discovered without the use of absolute scaling—a fact which suggests that psychology will not possess many broad quantitative laws until raw scores are more generally subjected to the scaling technique."—*J. McV. Hunt* (Brown).

5437. **Yates, F. A further note on the arrangement of variety trials: quasi-Latin squares.** *Ann. Eugen., Camb.*, 1937, **7**, 319–332.—An extension of earlier papers on the principle of quasi-factorial design so that trials involving a number of classes and methods form a perfect square (with certain exceptions) so arranged that differences associated with two groupings of the experimental material are simultaneously eliminated from the class comparisons. A numerical example is presented by which it is shown that the gain in efficiency over the ordinary randomized blocks was 91%.—*J. W. Dunlap* (Rochester).

[See also abstract 5973.]

NERVOUS SYSTEM

5438. **Adrian, E. D. The electrical activity of the cortex.** *Proc. R. Soc. Med.*, 1936, **29**, 197–200.—A review.—*R. R. Willoughby* (Brown).

5439. **Bacq, Z. M., & Fredericq, H. The action of caffeine and related substances on the effects of autonomic nerve stimulation.** *J. Physiol.*, 1937, **90**, 55P.—*M. A. Rubin* (Worcester State Hospital).

5440. **Barris, R. W. Cataleptic symptoms following bilateral lesions in cats.** *Amer. J. Physiol.*, 1937, **119**, 213–220.—A portion of the neo-cortex rostral to a point 2 to 3 millimeters behind the medial tip of the ansate sulcus was removed by undercutting bilaterally in a single operation. At least the upper half of the gyrus proreus was destroyed in each case. The symptoms closely resembled catalepsy in that a high degree of plasticity of extremities and back muscles resulted. Abnormal postures were maintained and the ability of animals to initiate movement was subnormal. It is pointed out that there are similarities to symptoms obtained by Ranson et al. from lesions in the retro-mammillary region, and by Fulton, Jacobsen and Kennard from one-stage removal of the cortex anterior to area 4 of

Brodmann.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

5441. **Bendrat, T. A. Neur-electro-magnetic theory of nerve reactions.** New York: Swift & Co., 1937. Pp. 122. $3.00.—Behavior can be explained on a basis of neur-electro-magnetic currents which originate "through the knocking off of one of the spinning electrons in the first neur-electrical unit which comes in contact with a neur-electro-magnetic pressure or energy pattern into which a certain vibration-frequency becomes transformed." A section is devoted to an elementary presentation of the nature of sense receptors, analogies to physical systems are drawn, and the assertion made that electro-magnetic principles apply to reflex, habit, volition, and the thinking and learning processes. Mental disease is a neur-electro-magnetic disorder which can be treated with electro-magnetic waves. The appendix contains reference quotations, principally from newspapers.—*H. Stevens* (Pennsylvania).

5442. **Bishop, G. H. Interpretation of potentials led from the cervical sympathetic ganglion of the rabbit.** *J. cell. comp. Physiol.*, 1936, **8**, 465–477.—(*Biol. Abstr.* XI: 13713).

5443. **Bonnet, V., & Bremer, F. A study of after-discharge of spinal reflexes of the frog and toad.** *J. Physiol.*, 1937, **90**, 45–47P.—Experiments are described which seem consistent with the hypothesis that after-discharge of spinal reflexes represents temporary automatism of nerve cells, probably internuncial neurones, which may have a neuro-humoral basis.—*M. A. Rubin* (Worcester State Hospital).

5444. **Bouckaert, J. P., & Colle, J. Evolution of excitatory disturbance in electrical stimulation of tissues.** *J. Physiol.*, 1937, **90**, 75–77P.—*M. A. Rubin* (Worcester State Hospital).

5445. **Brock, S. The basis of clinical neurology; the anatomy and physiology of the nervous system in their application to clinical neurology.** Baltimore: Williams & Wilkins, 1937. Pp. 368. $4.75.—*R. R. Willoughby* (Brown).

5446. **Dolin, A. O., Minker-Bogdanova, E. T., & Povorinskii, Y. A. Rolkory golovnogo mozga v reguliatsii protsessov obmena.** (The significance of the cerebral cortex in disturbances of metabolism.) *Ark. biol. Nauk*, 1934, **36**, 65–77.—English summary.—(*Biol. Abstr.* XI: 13718).

5447. **Döllken, F. Beiträge zur Entwicklung der Strukturen und Kreuzungen im Zentralnervensystem.** (Contributions to the development of structures and decussations in the central nervous system.) Leipzig: Thieme, 1937. Pp. 68. M. 5.80.—*P. L. Krieger* (Leipzig/Munich).

5448. **Ets, H. N. The effect of potassium on the cold blocking of spider crab nerve.** *J. cell. comp. Physiol.*, 1936, **8**, 101–108.—(*Biol. Abstr.* XI: 11026).

5449. **Galperin, S. I. Über die Erscheinungen der Nachhemmung in der Grosshirnrinde der menschenähnlichen Affen.** (On the manifestations of after-inhibition in the cerebral cortex of the anthropoid apes.) *Z. ges. exp. Med.*, 1934, **93**, 289–295.—(*Biol. Abstr.* XI: 11032).

5450. **Galperin, S. I., Golyschewa, K. P., & Skipin, G. W. Die höchste Nerventätigkeit der Affen. I. Über die Erscheinung der Nachhemmung bei Pavianen.** (The highest nervous activity in apes. I. The manifestation of after-inhibition in baboons.) *Z. ges. exp. Med.*, 1934, **93**, 276–288.—(*Biol. Abstr.* XI: 11031).

5451. **Gurwitsch, A. G. Mitogenetic analysis of the excitation of the nervous system.** Amsterdam: N.V. Noord-Hollandsche Uitgeversmaatschappij, 1937. Pp. 114.—Earlier demonstrations have shown that the ultraviolet rays emanating from an onion affect yeast cultures, causing cell division which may be measured quantitatively. It has now been shown by Gurwitsch and collaborators and Audubert and Levy that there is a radiation from nerve tissue. That is, an excitation of a nerve produced by mechanical or electrical stimulation is accompanied by the emanation of ultraviolet rays which can be detected by their effect on yeast cultures (causing cell division) or by spectrographic analysis of the radiation. Nervous excitations considered identical in classical physiology can be shown to be qualitatively different in terms of their radiations. Radiations from sciatic nerve and brain cortex of frogs and rabbits are minimal during a state of rest but markedly increased during excitation. Radiations from active fibers of a nerve trunk set up secondary radiations in non-active fibers which may be propagated the length of the nerve at a speed of 30 meters per second. When the source of mitogenetic irradiation is a ferment, such as gastric juice, the resulting excitation of the nerve is a passing phenomenon, since the secondary radiation is soon abated. Long continued mitogenetic radiation produces a local state of exhaustion in the nerve called parabiosis, during which nerve conduction and secondary radiation are inhibited. The reactions of the nervous system to mitogenetic irradiation are different from other modes of nervous excitation in that they are not adequate to cause contraction of a muscle attached to a motor nerve. The secondary radiation and its propagation are conceived as chain reactions resulting from the excitation of several molecules which have absorbed some quanta of radiation.—*D. B. Lindsley* (Western Reserve).

5452. **Hodgkin, A. L. Evidence for electrical transmission in nerve. Part I.** *J. Physiol.*, 1937, **90**, 183–210.—Two changes result in the region just beyond a local cold or pressure block when a nerve impulse is extinguished by the block: (1) a spread of electrotonus, and (2) a localized increase in excitability. It is suggested that the local circuits producing the electrotonic potential are the cause of the increase in excitability.—*M. A. Rubin* (Worcester State Hospital).

5453. **Hodgkin, A. L. Evidence for electrical transmission in nerve. Part II.** *J. Physiol.*, 1937, **90**, 211–232.—Evidence is presented to show that

the electrotonic current which produces the extrinsic potential (see Part I) is the cause of increased excitability in the region of nerve beyond a cold or pressure block. It is concluded that it is possible for nervous impulses to be transmitted by electrotonic currents.—*M. A. Rubin* (Worcester State Hospital).

5454. **Jasper, H. H., & Cruikshank, R. M. Electro-encephalography: II. Visual stimulation and the after-image as affecting the occipital alpha rhythm.** *J. gen: Psychol.*, 1937, **17**, 29–48.—Electro-encephalograms from the occipital region were obtained before, during, and after controlled stimulation by a red cross. A key was arranged for the subjects' use in recording the sensation or its after-image. A typical 15-second stimulation resulted in 4–8 fluctuations of the after-image, lasting 20–40 secs. The alpha rhythm was usually blocked by the onset of the stimulus, and might recover while the light was still on. Each successive after-image was usually accompanied by a temporary decrease in the rhythm. The cortical activity returned to the pre-stimulation level after the last after-image. A number of other findings are presented and discussed. Certain of them suggest that "These cortical rhythms may have pace-makers in the diencephalon which not only serve to synchronize the activity observed from various localized areas of the cortex, but which tend to cause a given external stimulus to be effective in suppressing the cortical rhythms only when it involves responses which are ordinarily associated with the autonomic division of the nervous system."—*H. Schlosberg* (Brown).

5455. **Jelgersma, G. Het cerebellum.** (The cerebellum.) *Psychiat. Neurol. Bl., Amst.*, 1934, Nos. 3–4, 828–846.—(*Biol. Abstr.* XI: 11047).

5456. **Jung, L., Tagand, R., & Pierre, M. Sur l'existence de filets accélérateurs cardiaques dans le connectif cervical du sympathique.** (On the existence of cardiac accelerator fibers in the cervical sympathetic system.) *Ann. Physiol. Physicochim. Biol.*, 1934, **10**, 931–933.—(*Biol. Abstr.* XI: 11–49).

5457. **Kettenmeyer, G., & La Barre, J. The effect of paralysis of the thalamic centers on adrenalin secretion.** *J. Physiol.*, 1937, **90**, 57–58P.—*M. A. Rubin* (Worcester State Hospital).

5458. **King, L. P., & Hsung, M. C. Contribution to the study of the specific gravity and of the water content of the brains of vertebrate animals. (First memoir: brains of birds.)** *Bull. nat. Acad. Peiping*, 1935, **6**, No. 1, 1–47.—The change of specific gravity or water content of the brain is related to both the environment and the behavior of birds. A bird which resides on mountains or in the wilderness and has a swift flight has a higher specific gravity and lower water content in its brain; while a bird which lives near water or is domesticated, and is weak in flying but strong in walking, has a lower specific gravity and higher water content in its brain.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5459. **Komarov, S. A. Zavisimost otnositelnoi refraktornoi fazy nerva ot kharaktera elektricheskogo razdrazheniia (napravleniia induktsionnogo udara).** (Dependence of the relative refractory nerve phase on the character of electric stimulation.) *Fiziol. Zh. S.S.S.R.*, 1934, **17**, 341–350.—German summary.—(*Biol. Abstr.* XI: 11054).

5460. **Latmanizova, L. V., & Shamarina, N. M. Vliianie podporogovogo razdrazheniia na labilnost nerva i myshtsy.** (Influence of subliminal stimulation on lability of nerve and muscle.) *Fiziol. Zh. S.S.S.R.*, 1934, **17**, 18–22.—English summary.—(*Biol. Abstr.* XI: 11061).

5461. **Lehmann, J. E. The effect of asphyxia on mammalian A nerve fibers.** *Amer. J. Physiol.*, 1937, **119**, 111–120.—The effect of asphyxia on excised peroneal, phrenic and saphenous nerves of the cat was investigated under controlled hydrogen-ion concentration. The changes resembled those previously found in frog nerve. After-potentials disappeared on the average after 10 minutes; spikes disappeared after 30 minutes. During the first 6 to 8 minutes the threshold fell markedly and after that rose to inexcitability. This was reversible on administration of oxygen. The change in threshold is better interpreted in terms of ion balance than of alkalinity and acidity of the nerve. The changes resemble the effects of low and high calcium. The results differ for peroneal and saphenous nerves, but other nerves are similar to one or the other of these two.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

5462. **Lewy, F. H. Strength-duration curves of the overexcitable and underexcitable nerve-muscle apparatus and some consequences bearing on the clinical application of chronaximetry.** *Amer. J. med. Sci.*, 1935, **191**, 491–503.—(*Biol. Abstr.* XI: 11063).

5463. **Loo, Y. T. The functions of the cerebral cortex; an interpretation.** *Chin. J. Psychol.*, 1937, **1**, 181–191.—In a discussion of the functions of the cerebral cortex the author comes to the conclusion that structurally the cortical areas are well differentiated; as for functions, some are localized, some are not; for some of the functions there is localization in some animals of higher order but perhaps none in lower animals. The psychological functions seem to be too complicated to be localized. Lashley has shown that there is no special area on the cerebral cortex responsible for maze learning, light or pattern discrimination in the albino rat, and has raised a new problem for the study of the dynamics of the cortex as a whole. This problem is different from, though closely related to, that of the functions of the different cortical areas.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5464. **Loomis, A. L., Harvey, E. N., & Hobart, G. A. Cerebral states during sleep, as studied by human brain potentials.** *J. exp. Psychol.*, 1937, **21**, 127–144.—A new type of push-pull amplifier system, especially designed to record accurately the large slow potentials, was used to study the potential patterns of sleep. Five states of sleep characterized

by marked differences in potential could be recognized. They are A, alpha; B, low voltage; C, spindle; D, spindle and random; E, random; in order of appearance and in order of resistance to change by disturbances. It was discovered that movements might occur without a change of state and a change of state without movement, but frequently movement was immediately followed by a change of state upward, occasionally downward, and occasionally a movement occurred just after a change of state. During sleep there was a continual shift in states upward and downward, sometimes associated with recognized stimuli, sometimes without any external stimulus but probably as a result of internal stimuli. Stimuli shift the level upward, sometimes skipping one or two states but not necessarily awakening the sleeper. In two instances dreams occurred in the B state.—*H. W. Karn* (Pittsburgh).

5465. **Lullies, H. Die Messung und Bedeutung der electrolytischen Polarisation im Nerven.** (Measurement and significance of electrolyte polarization in nerve.) *Biol. Rev.*, 1937, **12**, 338–356.—*M. A. Rubin* (Worcester State Hospital).

5466. **Magnitskii, A. N. Deistvie postoiannogo toka na Sechenovskoe tormozhenie.** (Action of constant current on Sechenov's inhibition.) *Arkh. biol. Nauk*, 1934, **34**, 95–100.—German summary.—(*Biol. Abstr.* XI: 11066).

5467. **Neyman, J., & Tokarska, B. Errors of the second kind in testing "Student's" hypothesis.** *J. Amer. statist. Ass.*, 1936, **31**, 318–326.—"Errors that consist of the unjust rejection of a hypothesis are called errors of the first kind. Those that consist of the acceptance of a hypothesis when it is in fact false are called errors of the second kind." Tables of significance for testing for errors of the first kind have been constructed by "Student" and Fisher. The authors present two tables, with significance levels of .05 and .01, for testing for errors of the second kind in the asymmetrical case, in which the hypothesis to be tested is that an obtained mean is equal to or less than (or equal to or greater than) some theoretical value.—*E. E. Cureton* (Alabama Polytechnic Institute).

5468. **Nikitin, N. N. Funktsionalnoe nervnoe pole i tormozhenie.** (Functional nervous field and inhibition.) *Arkh. biol. Nauk*, 1934, **35**, 81–97.—(*Biol. Abstr.* XI: 11075).

5469. **Palmer, D. M. The human nervous system; a textbook of psychoneurology for freshmen medical students.** Columbus, O.: H. L. Hedrick, 1937. Pp. 249. $2.00.—*R. R. Willoughby* (Brown).

5470. **Pflugfelder, O. Vergleichend-anatomische, experimentelle und embryologische Untersuchungen über das Nervensystem und die Sinnesorgane der Rhynchoten.** (Comparative-anatomical, experimental and embryological investigations on the nervous system and the sense organs of the hemiptera.) *Zoologica, Stuttgart*, 1936, **34**, 1–56.—*P. L. Krieger* (Leipzig).

5471. **Raeva, N. V. Vliianie avtonommoi nervnoi sistemy na perifericheskie retseptory kozhi liagushki.** (The influence of the autonomic nervous system on the peripheral receptors of frog skin.) *Arkh. biol. Nauk*, 1935, **38**, 81–86.—German summary.—(*Biol. Abstr.* XI: 11086).

5472. **Rheinberger, M. B., & Jasper, H. H. Electrical activity of the cerebral cortex in the unanesthetized cat.** *Amer. J. Physiol.*, 1937, **119**, 186–196.—The electrical activity of the cortex of cats was recorded under dial and without anesthesia. In the latter case the animals were unrestrained. Fine silver wire electrodes were planted in "motor, sensory, auditory and visual areas." Stimuli were auditory, 500 to 2000 cycle tones 20 to 30 db above threshold; visual, 7 millilamberts flicker intensity; and tactual stimuli. Independent amplifiers recorded on a Westinghouse oscillograph. The predominant rhythm under partial dial and in the unanesthetized state ranged from 3 to 15 per second. Bilaterally homologous areas showed similar patterns. Different patterns were related to cytoarchitectonic fields under certain conditions, but the wide variations occurring in all areas in response to stimuli in the normal animal indicate the importance of functional or activational states. Activation from internal or external stimuli produced low amplitude and higher frequency. Relaxation brought a return of slower rhythms interspersed with bursts of higher frequency, as previously reported for human sleep. On and off effects and slow positive and negative after-potentials were associated with depression and change of frequency. The fact that changes might occur in all regions following a single stimulus but that under certain conditions differential responses were obtained are pointed out as illustrating both localized and mass functioning of the cortex.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

5473. **Rijlant, P. Localization of the respiratory center.** *J. Physiol.*, 1937, **90**, 43–45P.—By oscillographic investigation it is found that there are separate centers in the floor of the fourth ventricle governing respiratory and coordinating inspiratory activity.—*M. A. Rubin* (Worcester State Hospital).

5474. **Rijnberk, G. v., & Cate, J. ten. Über die Funktionen eines von allen heterometameren Nervenverbindungen isolierten Körpersegmentes bei Hunden.** (The functions of all the heterometameric neural connections of an isolated body segment in the dog.) *Arch. néerl. Physiol.*, 1936, **21**, 169–194.—(*Biol. Abstr.* XI: 13730).

5475. **Rosenzweig, B. M. Der Einfluss beiderseitiger Exstirpation der Occipitallappen des Gehirns auf bedingte Gesichtsreflexe.** (The influence of bilateral extirpation of the occipital lobes on conditioned visual reflexes.) *Acta med. scand.*, 1935, **84**, 386–400.—(*Biol. Abstr.* XI: 11092).

5476. **Rosenzweig, B. M. Über den Einfluss der Exstirpation der Rinde einer Grosshirnhemisphäre auf bedingte Augenreflexe und auf das Gesichtsfeld beim Hunde.** (The influence of the extirpation of the cortex of a cerebral hemisphere upon conditioned eye reflexes and upon the visual field in dogs.) *Acta*

med. scand., 1935, **84**, 401–421.—(*Biol. Abstr.* XI: 11093).

5477. **Rudd, G. V., & Kinross, F. M. The chemical mediation of impulses in certain fibres of the splanchnic nerves.** *Aust. J. exp. Biol. med. Sci.*, 1936, **14**, 193–198.—(*Biol. Abstr.* XI: 13731).

5478. **Schimert, I. Experimentelle Untersuchungen über die transneuronale Degeneration.** (Experimental investigations concerning degeneration across neurones.) *Anat. Anz.*, 1937, **83**, 148–152.—*P. L. Krieger* (Leipzig).

5479. **Sjöstrand, T. Potential changes in the cerebral cortex of the rabbit arising from cellular activity and the transmission of impulses in the white matter.** *J. Physiol.*, 1937, **90**, 41–43P.—The amplitude and regularity of the brain potential pattern evoked by strychnine is increased by a drop of acetylcholine or eserine on the cortex. Acetylcholine increases the frequency of the waves and can produce a grouping of potential changes of equal magnitude. Repeated applications or stronger solutions of acetylcholine inhibit the waves completely. Evidence is described which suggests that slow rhythmic waves can originate in the white matter of the cortex.—*M. A. Rubin* (Worcester State Hospital).

5480. **Stolte, H. Über Regeneration und Nervensystem nach neuen Versuchen an Anneliden und Nemertinen.** (Regeneration and the nervous system according to new researches on Annelida and Nemertina.) *Zool. Anz.*, 1935, **8** (suppl. Bd.), 149–156.—The regenerative process is determined not by a single factor but by a series of cooperating factors.—*P. L. Krieger* (Leipzig/Munich).

5481. **Suzuki, I. (1) Das "Erregungsgesetz" des sekretorischen Hautnerven im Froschischiadikus bei Reizung mit konstanten Strömen. (2) Über die Leitungsgeschwindigkeit am sekretorischen Hautnerven im Froschischiadikus. (3) Über die Chronaxie des sekretorischen Hautnerven im Froschischiadikus.** (The "law of excitation" of the skin-secretory nerves of the frog ischiadicus under stimulation with constant currents; the speed of conduction in these nerves; their chronaxy.) *Z. Biol.*, 1935, **96**, 567–578; 579–585; 608–614.—(*Biol. Abstr.* XI: 11109).

5482. **Tilney, F. The brain from fish to man. I.** *Sci. Mon., N. Y.*, 1937, **45**, 289–306.—An illustrated presentation of the development of the brain from the fish through the anthropoid ape group.—*O. P. Lester* (Buffalo).

5483. **Walker, A. E. A study of the cerebellocerebral relationship by the oscillographic method.** *J. Physiol.*, 1937, **90**, 39–41P.—In the cat, with encephalon isolated by section of the medulla at the obex, electrical stimulation of the cerebellar cortex caused marked alteration in the spontaneous activity of the motor cortex contralateral to the site of cerebellar stimulation; the influence of the cerebellum (especially the neocerebellar part) is less marked on the motor cortex homolateral to the stimulated area. The effects of novocaine, cooling, and section of the superior peduncle on the influence of the cerebellum on the motor cortex are described.—*M. A. Rubin* (Worcester State Hospital).

[See also abstracts 5491, 5492, 5521, 5570, 5592, 5603, 5629, 5631, 5701, 5724, 5734.]

RECEPTIVE AND PERCEPTUAL PROCESSES

5484. **Abe, S. Zikan-isiki no sinri.** (Psychology of time consciousness.) Tokyo: Tôen-Syobô, 1936. Pp. 260. Yen 2,50.—The author studies from various viewpoints the estimation of duration, especially the fundamental criterion of duration. He has maintained that there exist fundamental differences among the criteria of past duration, future duration and present duration. Besides the problem of the fundamental time criterion, the following subjects are of interest: time consciousness as a subject-consciousness and time experience as an "Eigenbewusstsein," and the comparison of intellectual time and emotional volitional time.—*T. Chiba* (Sendai).

5485. **Allers, R., & Schömer, E. Über den "Wettstreit der Hörfelder."** (The rivalry of the auditory fields.) *S. B. Akad. Wiss. Wien*, 1935, **144**, 401–418.—(*Biol. Abstr.* XI: 13673).

5486. **Bachem, A. Various types of absolute pitch.** *J. acoust. Soc. Amer.*, 1937 **9**, 146–151.—The author studied 103 persons, most of whom had a high degree of absolute pitch. 7 of them "possessed infallible absolute pitch over the whole scale of the piano and for all musical instruments and physical apparatus with which they were tested." 44 of them made only very small errors, or errors involving exactly one octave. The types of absolute pitch are divided into three categories: universal, quasi-, and pseudo-. A theory is offered to account for absolute pitch which makes it depend upon the recognition of "tone chroma" within the octave.—*S. S. Stevens* (Harvard).

5487. **Bagger, H. J. Stimmuntersuchungen an Taubstummen.** (Voice investigations on deaf mutes.) *Arch. ges. Phonet.*, 1937, **1**, Part II, 99–103.—Bagger made records with Otto Frank's apparatus of 9 totally deaf persons and 9 deaf persons not entirely devoid of hearing. The tones recorded were long drawn out notes on the vowel A. The results were that the totally deaf intoned lower, within the first ½ to 5 seconds, from a minor third to a sixth, even though in between a short rise in pitch is produced by a temporary increase in volume. With deaf mutes not entirely devoid of hearing the fluctuations in pitch are often not greater than with normal children who cannot sing (amounting to ½ to 1, rarely 2 tones). Twice there was intense sharping of the tone, at the most by a third, but never any flatting. With totally deaf persons the pitch sinks considerably according to the diminution of the respiratory pressure. With deaf mutes not entirely devoid of hearing the pitch fluctuates with-

out any tendency to sink; indeed, it sometimes rises. The better the sense of hearing the less fluctuation there is in the pitch of notes held for a long time.—*P. L. Krieger* (Leipzig/Munich).

5488. **Baldus, C. Untersuchung über Geruchsschwellen.** (A study on the olfactory threshold.) Wertheim a. M.: Bechstein, 1937. Pp. 25.—*R. R. Willoughby* (Brown).

5489. **Böhme, M. Über die Geschmackswirkung von anorganischen Kalcium- und Magnesiumsalzen.** (The effect upon taste of inorganic salts of calcium and magnesium.) Zeulenroda: Sporn, 1936. Pp. 23.—*R. R. Willoughby* (Brown).

5490. **Brogden, W. J., & Culler, E. Increased acoustic sensitivity in dogs following Roentgen-radiation of the hypophysis.** *Amer. J. Physiol.*, 1937, **119**, 13–23.—A previous study by Girden showed a transitory gain of 5.5 db at 1000 cycles after irradiation. This effect was reinvestigated at three frequencies, using the motor conditioning method previously described. General activity was recorded by polygraph. Some changes in activity were found, but they were not correlated with hearing gain, nor was this gain correlated with the size of the dose. Latency of onset in days was inverse with dosage. The X-ray effect was operative on the pituitary, since it was ineffective after hypophysectomy. Tests with high and low blood sugar on a dog and on human diabetics showed a high limen with high sugar and a low one with low sugar. The effect was attributed to degeneration and reconstruction of cells of the pituitary, with resultant changes of sugar in the body fluids and cochlear lymph. 40 days after hypophysectomy in two dogs the threshold declined and remained 5 db below level. Two effects are inferred: (1) "a true X-ray effect," which is a mild transitory sugar depression and gain in sensitivity; (2) a "hypophysectomy effect" consisting of first depression and gain followed by a more severe depression in sugar and hearing gain.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

5491. **Chang, M. C. Neural mechanism of monocular vision. II. Pattern discrimination in the monocular rat before and after destruction of the visual area and in the rat deprived of the visual area on one side before and after severance of the contralateral optic nerve.** *Chin. J. Psychol.*, 1936, **1**, 91–100.—After 5 days of preliminary training, the left visual cortex was removed (Group I) in 6, and the right optic nerve was severed (Group II) in 7 male albino rats respectively. Following 15 days of recovery, all of the rats were trained to discriminate between a white circle on a black card and a white inverted triangle of equal area in Lashley's jumping apparatus (with modifications). They learned to reach the criterion of discrimination (30 consecutive correct jumps) with a number of jumps not much different from that of normal rats. The left optic nerves of the rats in Group I were then severed and the right visual cortices of the left-eyed rats in Group II were destroyed. After 15 days of rest, they were retrained to discriminate the original visual stimuli. Only 2 rats in Group II relearned the problem, and these required 2 to 3 times as many trials as for the initial learning. The author states that "although their relearning scores are inconsistent, the behavior data when taken together with both the visual-cortical lesion and the retrograde degeneration of the lateral geniculate body warrant the conclusion that the visual area contralateral to the normal eye is more important for the albino rat in pattern discrimination. The uncrossed fibers seem to have no particular visual function for that purpose."—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5492. **Chang, M. C. Neural mechanism of monocular vision. III. Disturbance of monocular size discrimination in the albino rat after destruction of the cerebral visual area.** *Chin. J. Psychol.*, 1937, **1**, 221–229.—14 adult albino rats were trained to discriminate a large solid white circle from a small one with Lashley's jumping apparatus. In learning the problem they made an average of 124.3 trials with 28.5 errors. As soon as the rats reached the criterion of 30 consecutive correct jumps, their left optic nerves were severed. After 15 days of recovery they were retrained to the same criterion of learning. They relearned the problem in 25.5 trials with 4.9 errors. Then the right visual area of 7 rats and the left visual area of the other 7 rats were destroyed. After another 15 days of recovery and some preliminary training they were again retrained to discriminate the two circles. Among the former group of rats, 5 relearned the habit in 64.2 trials with 12.6 errors, while the other 2 failed. Among the latter group, 6 failed; the other one was successful, but the histological examination showed that its contralateral geniculo-striate system suffered less extensive destruction. These results lead the author to emphasize the significance of the visual area contralateral to the normal eye as against the indifference of the homolateral visual area in size discrimination.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5493. **Chase, W. P. Influence of the line of regard on the "floating finger" illusion.** *J. gen. Psychol.*, 1937, **17**, 164–166.—If the eyes are fixated on a distant point, and the two forefingers are approximated about 20 cm. in front of the eyes, parts of the two images will fuse to give a "floating finger" illusion. The variations in this illusion under different types of fixation and dominance are described and discussed.—*H. Schlosberg* (Brown).

5494. **Ciocco, A. Audiometric studies on school children. II. Types of audiometric curves.** *Publ. Hlth. Rep., Wash.*, 1936, **51**, 1609–1621.—(*Biol. Abstr.* XI: 13676).

5495. **Clark, A. H. Secondary binocular vision in birds.** *Science*, 1937, **86**, 223–224.—The author discusses three types of head movements of birds which are connected with vision. The conclusion is reached that although birds suffer the apparent handicap of monocular vision, in reality their head

movements allow all the advantages of binocular vision.—*F. A. Mote, Jr.* (Brown).

5496. **Crozier, W. J., & Pincus, G. Photic stimulation of young rats.** *J. gen. Psychol.*, 1937, **17**, 105–111.—"Phototropic orienting responses are exhibited by young rats at ages eight to nine days after birth and later until the eyes are opened (14 days). These responses are due to stimulation of the eyes by light. Visual purple is demonstrably present at 10 days; by 12 days after birth it is present in relatively large amounts. The visual screening due to the unopened eyelids serves to enhance the relative stimulating efficiency of red light." The latter point was shown by determining the amount of radiation at different wave lengths necessary for the suppression of positive stereotropism.—*H. Schlosberg* (Brown).

5497. **Day, K. M. Psychology of deafness.** *Penn. med. J.*, 1936, **40**, 177.—*R. R. Willoughby* (Brown).

5498. **Dethier, V. G. Gustation and olfaction in lepidopterous larvae.** *Biol. Bull., Woods Hole*, 1937, **72**, 7–23.—The threshold, location, and probable end-organs for gustation and olfaction in the lepidopterous larvae were determined. The results of experiments indicate that taste and smell are the primary factors influencing the food choice of these organisms.—*D. J. Ingle* (Mayo Foundation).

5499. **Farnsworth, P. R. An approach to the study of vocal resonance.** *J. acoust. Soc. Amer.*, 1937, **9**, 152–155.—"In this paper the matter of the cord-tone-resonance theory of vowels has been attacked from a psychological standpoint, that of vowel resemblance to relatively pure tones elicited by a beat frequency oscillator." The 196 subjects judged which of 12 vowels resembled most closely tones representing roughly the first two overtone bands of these vowels. The particular pitches which the subjects felt resembled the several vowel sounds were not necessarily near the frequencies of the lower or upper bands of these same vowels, or near the mean of the two. The vowels possessing both high and low frequency bands were mentioned when high frequencies were presented, and vowels with only strong low bands were mentioned when low frequencies were presented. These relations were relative rather than absolute, as regards frequency.—*S. S. Stevens* (Harvard).

5500. **Fedorov, N. T., & Fedorova, V. I. Issledovania po tsvetnomu zreniiu.** (Study of color vision.) *Bull. Acad. Sci. U.R.S.S.*, 1935, **10**, 1431–1450.—English summary.—(*Biol. Abstr.* XI: 13683).

5501. **Harrell, T. W. Factors influencing preference and memory for auditory rhythm.** *J. gen. Psychol.*, 1937, **17**, 63–104.—A condenser discharging into ear-phones through a neon lamp was used to furnish regular clicks at a controlled rate. Subjects were asked to choose their preferred rates under different conditions, including a set for "subjective" grouping. The subjects showed consistent preferences, but differed considerably among themselves. In general, the more the units that were included in a group, the more rapid was the preferred rate. No significant correlations were found when preferred rates were compared with preferred rates of tapping or of walking. Fatigue and alcohol had no clear effect on the preferred rate. Other parts of the experiment were concerned with the speed of singing and of waltzing, memory for rates, and the importance of response in the perception of rhythm. A large amount of data is presented in tables and graphs.—*H. Schlosberg* (Brown).

5502. **Hellpach, W. Neue Aufgaben der Psychophysik.** (New fields for psychophysics.) *Geist. Arbeit*, 1937, **4**, 1.—Psychophysics, often envisaged too narrowly as the science of relations between stimulus and sensation, must rather fit into the plan wherever investigations of the relations between physical and psychic processes as well as between subjective impression and objective reality are carried out.—*P. L. Krieger* (Leipzig).

5503. **Hermans, T. G. Visual size constancy as a function of convergence.** *J. exp. Psychol.*, 1937, **21**, 145–161.—"The thesis of the present paper is that the kinaesthetic stimuli derived from the muscular activities in binocular convergence accompanying the retinal stimulation are specific cues determining visual size constancy; that these stimuli are the conditioners of this illusory perception while the retinal concomitant plays only a minor but necessary part in the production of this illusion." Demonstration and incidental experiments are presented in support of the proposition.—*H. W. Karn* (Pittsburgh).

5504. **Hertel, E. [Ed.] Stilling's pseudo-isochromatic plates for testing colour perception.** Edinburgh: F. Bauermeister, 1936. £ 1, 12s, 6d.—*R. R. Willoughby* (Brown).

5505. **Holway, A. H., & Crozier, W. J. Differential sensitivity for somesthetic pressure.** *Psychol. Rec.*, 1937, **1**, 170–176.—Supplementing the "volley theory" of sensory intensity, experimental data show that with "mechanical pressure as parameter (= 6 gm./cm.^{2}) and area as variant, differential sensitivity varies *directly* with the applied weight."—*P.S. de Q. Cabot* (Simmons).

5506. **Holway, A. H., & Crozier, W. J. The significance of area for differential sensitivity in somesthetic pressure.** *Psychol. Rec.*, 1937, **1**, 178–184.—"Mechanical pressure, not tension, is significant for differential sensitivity in somesthetic pressure. Excitation in these experiments is a direct function of *area* and of *mechanical pressure*."—*P.S. de Q. Cabot* (Simmons).

5507. **Hsiao, H. H. [Determinants in the formation of perceptual units (vol. II).]** *Monogr. Psychol. Educ., nat. cent. Univ.*, 1936, **3**, No. 2. Pp. 118.—The present study consists of two parts. Part I, a continuation of a previous work (see VIII: 3923) deals with a study of two factors in the formation of perceptual units, viz., one factor versus another factor. Part II, a preliminary investigation, deals

with a study of three factors, viz., one factor versus two other factors. The factors under consideration are homogeneity, distance, symmetry, boundary, position, meaning, and attitude. Altogether 9 experiments were performed in Part I, and 14 experiments in Part II. In each experiment a varying number (8–13) of college students were used. The results show that (1) internal factors (such as meaning and attitude) have a more powerful influence than external factors; this of course does not deny the existence of the influence of the latter. (2) Under certain conditions some external factors (such as homogeneity, distance, etc.) are always more powerful than many others; this too does not deny that under other conditions these factors can be overcome by others. (3) In the case of three factors, factor A which is weaker than factor B may combine with factor C so as to overcome factor B; but such combined influence is not always reliable, and is determined by many other conditions. These findings apply only to adults; the relation between the different stages of the developmental period and these phenomena is still to be settled.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5508. **Jeffress, L. A. An illusion of speed.** *J. gen. Psychol.*, 1937, **17**, 151.—When an auto is coasting with gears disengaged and motor stopped, the car seems to slow down when the accelerator is depressed, and to go faster when it is released. This is related to the size-weight illusion.—*H. Schlosberg* (Brown).

5509. **Jores, A., & Frees, J. Die Tagesschwankungen der Schmerzempfindung.** (Daily variations in pain sensitivity.) *Dtsch. med. Wschr.*, 1937, **63**, 962–963.—This was tested in 20 persons by stimulation of the teeth with the electric current. All the subjects gave the same type of curve. Sensitivity to pain rose slowly from 8 a.m. to a maximum at 6 p.m., after which it declined rapidly to a stationary level (particularly between midnight and 2 a.m.) which was lower than the daytime sensitivity.—*P. L. Krieger* (Leipzig).

5510. **Kelley, N. H., & Reger, S. N. The effect of binaural occlusion of the external auditory meati on the sensitivity of the normal ear for bone conducted sound.** *J. exp. Psychol.*, 1937, **21**, 211–217.—The results of this investigation show that the phenomenon of "increased bone conduction" is present with binaural occlusion of the meati. The effect of such occlusion is a function of the stimulus tone. Thus occlusion lowered the threshold over the frequency range from 64 to 1024 c.p.s. From 2048 to 8192 c.p.s. occlusion had no significant effect. The effect of occlusion was approximately the same with the bone conduction receiver on the forehead as when on the mastoids.—*H. W. Karn* (Pittsburgh).

5511. **Knöpfel, W. Untersuchungen zur Schall-Lokalisation und ihre Beziehungen zum Persönlichkeitstypus.** (Studies on sound localization and its relations to personality type.) *Untersuch. Psychol. Phil.*, 1936, **11**. Pp. 40.—The impression of direction depends on the difference in time and intensity of the impact of the sound waves on the two ears, and the fusion of impressions from both ears. When the change of the physical factors is sufficiently slow, no change of localization occurs. On account of perseveration the auditory impression is referred to its original site (paradoxical localization effect). The rise in potential of the sound curve must be rapid if localization is to be clear. Extraverts appreciate direction more clearly, quickly and plastically than introverts. Nevertheless, the latter can attain through practice almost as great certainty as extraverts, although the experience itself remains essentially different in the two types.—*P. L. Krieger* (Leipzig).

5512. **Kobrak, H., Lindsay, J. R., & Perlman, H. B. Value of the reflex contraction of the muscles of the middle ear as an indicator of hearing.** *Arch. Otolaryng., Chicago*, 1935, **21**, 663–676.—(*Biol. Abstr.* XI: 13696).

5513. **Kock, W. E. A new interpretation of the results of experiments on the differential pitch sensitivity of the ear.** *J. acoust. Soc. Amer.*, 1937, **9**, 129–134.—The author shows that the determination of differential sensitivity by any method involving a periodic change in the frequency of a stimulus is complicated by the fact that such a stimulus is equivalent to a group of steady tones presented simultaneously to the ear. The results of Shower and Biddulph on differential sensitivity to frequency were analyzed with this fact in mind. Their results are consistent with what we should expect, by way of resolving power, when a known spectrum of steady tones is impressed upon a set of tuned resonators.—*S. S. Stevens* (Harvard).

5514. **Kraskin, L. H. Emotional disorders and the eye.** *Amer. J. Optom.*, 1937, **14**, 285–301.—A plea for consideration of patients as organic wholes, urging recognition of the fact that ocular difficulties may be expressions of emotional maladjustments and so may not be amenable to direct treatment. Illustrative cases are cited, mostly from the literature.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

5515. **Lienau, C. C. Law of the geometric mean as a sensitometric function.** *J. Franklin Inst.*, 1934, **218**, 35–39.—(*Biol Abstr.* XI: 13697).

5516. **Lindner, R. Ererbte Sprechbewegungen bei Taubstummen.** (Inheritance of speech movements in deaf-mutes.) *Dtsch. Sonderschule*, 1936, **3**, 248 ff.—*P. L. Krieger* (Leipzig/Munich).

5517. **Lindner, R. Experimentelle Untersuchung über das Ablesen der Lautsprache von Munde und das Mundhandsystem.** (Experimental investigation on the reading of speech from the mouth and the mouth-hand system.) *Dtsch. Sonderschule*, 1936, **3**, 822–914.—*P. L. Krieger* (Leipzig).

5518. **Lindsay, J. R., Kobrak, H., & Perlman, H. B. Relation of the stapedius reflex to hearing sensation in man.** *Arch. Otolaryng., Chicago*, 1936, **23**, 671–678.—(*Biol. Abstr.* XI: 13698).

5519. **Luh, C. W. [Suggestion toward the nomenclature of visual after-images.]** *Chin. J.*

Psychol., 1936, **1**, 167–168.—Generally speaking, psychologists have met with difficulty for lack of sufficient terms to describe various kinds of after-images. The terms "positive" and "negative" after-image can hardly cover all of them. According to the author, when only brightness-darkness is under consideration, after-images may be simply designated as "positive" or "negative." But when both brightness-darkness and hue are taken into account, we have to classify after-images as (1) positive heterochromatic after-image (a most common phenomenon in the dark room); (2) negative heterochromatic after-image (a most common phenomenon in the class-room); and (3) positive homochromatic after-image, which constitutes what textbooks have referred to as positive after-image and recurrent vision (at least part of it).—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5520. **Meissner, H. Methoden der Hörprüfungen eines Ohres.** (Methods of testing hearing in one ear.) *Z. Hals- Nas.- u. Ohrenheilk.*, 1936, **36**, 415–426.—*R. R. Willoughby* (Brown).

5521. **Myerson, A., & Thau, W. Human autonomic pharmacology. IX. Effect of cholinergic and adrenergic drugs on the eye.** *Arch. Ophthal., Chicago*, 1937, **18**, 78–90.—Accepting as a working hypothesis the theory of chemical mediation, the investigators studied effects of mecholyl, prostigmin, atropine and benzedrine dropped into the conjunctival sac. Mecholyl is a safer substitute for acetylcholine, which activates responses to parasympathetic stimulation. Prostigmin increases the effect of mecholyl by destroying the esterases which otherwise unite with the mecholyl and destroy its effectiveness. Atropine inhibits effects of mecholyl, probably by changing directly the chemical reaction between the activator and the reacting cell. Benzedrine is an adrenergic drug whose effects are enhanced by atropine, probably through its inhibiting normal acetylcholine effects. Various concentrations of the drugs were necessary to produce characteristic effects in different individuals, but doses which might be fatal if given intradermally are safely instilled in the conjunctival sac. The following findings are reported: (1) mecholyl constricts the pupil to pin-point, but permits persistence of the light reflex until extreme miosis is reached. Accommodation appears to be increased, intra-ocular tension is decreased, and the palpebral fissure is narrowed. (2) Prostigmin, synergistic with mecholyl, has the same general effects when acting alone. (3) Atropine dilates the pupil, paralyzes the constrictor and so prevents reaction to light, increases intra-ocular tension, and paralyzes the ciliary, thus preventing accommodation. (4) Benzedrine is synergistic with atropine. It dilates the pupil, diminishes but does not completely abolish the light reflex (which reappears in some degree in Argyll-Robertson pupils after instillation of benzedrine); it increases intra-ocular pressure, diminishes accommodation, widens the palpebral fissure, and narrows the retinal vessels. Subminimal doses of benzedrine and atropine together produce mydriasis and cycloplegia, with little change in intra-ocular pressure.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

5522. **Newman, E. B., Stevens, S. S., & Davis, H. Factors in the production of aural harmonics and combination tones.** *J. acoust. Soc. Amer.*, 1937, **9**, 107–118.—The magnitudes of the aural harmonics and combination tones produced in the ears of cats and guinea pigs in response to pure tonal stimuli were measured electrically. The cochlear potentials were sampled by an electrode applied to the round window and thence conducted through suitable amplifiers to an electrical wave analyzer. The wave analyzer measured the energy present at any frequency in the cochlear response. The functions relating the magnitudes of the first five harmonics to the intensity of the pure tonal stimulus were determined. Several differences in the behavior of the odd and even harmonics reveal the characteristics of the constraining mechanisms responsible for the production of the aural harmonics. Simultaneous stimulation of the ear by two tones (700 and 1200 cycles) produces a cochlear potential out of which not only the several harmonics of these two tones, but also the sum and difference tones representing combinations of these harmonics, can be analyzed. Nearly all the combination tones up to the seventh order were observed.—*S. S. Stevens* (Harvard).

5523. **Nicolai, C. Der Mechanismus der Akkommodation.** (The mechanism of accommodation.) *Klin. Mbl. Augenheilk.*, 1935, **94**, 617–623.—(*Biol. Abstr.* XI: 13701).

5524. **Ohm, J. Der Nystagmus bei der totalen angeborenen Farbenblindheit und seine Beziehungen zum Augenzittern der Bergleute nebst Bemerkungen zur Erklärung der Farbenblindheit.** (Nystagmus in total congenital color-blindness and its relations to miners' nystagmus, together with remarks on the explanation of color-blindness.) *Z. Augenheilk.*, 1937, **91**, 20–49.—Nystagmographic studies on persons with complete congenital color-blindness and nystagmus lead to the following comparisons with miners' nystagmus: The amplitude and number of oscillations coincide largely. In the mild and moderate cases of both forms, there is often a dependence on the direction of the gaze, and all directions and frequencies of oscillations occur. Often in the color-blind and almost always in miners frequency decreases and amplitude increases in darkness. Miners, however, can often suppress the movements completely by strong convergence, while the color-blind cannot do so, although sometimes there is a certain decrease. Furthermore, miners' nystagmus depends on the position and movements of the head, and that of color-blind persons does not.—*P. L. Krieger* (Leipzig).

5525. **Ryans, D. G. The phi-phenomenon: a fundamental Gestalt.** *J. gen. Psychol.*, 1937, **17**, 155–161.—After reviewing the literature on apparent movement, Ryans finds both cortical projection (Wertheimer) and motor continuity (Burtt)

theories too complex. He suggests that the perception of movement is due to learning. If this is true, "Gestalt psychology would suffer the loss of one of its first uncovered and more fundamental concepts." —*H. Schlosberg* (Brown).

5526. **Schmitt, L. Über den Stiel- und Zinkenton der Stimmgabel (qualitativ und quantitativ).** (Base and prong tones of the tuning-fork; qualitative and quantitative aspects.) Würzburg: Richter, 1936. Pp. 16.—*R. R. Willoughby* (Brown).

5527. **Scott, J. P. Inherited behavior in *Drosophila*.** *Proc. Ind. Acad. Sci.*, 1937, **40**, 211–216.—The time required to transverse 18.3 cm. toward light was measured in inbred white, brown and wild stocks of *Drosophila*. The mean times were: brown, 14.49 sec., wild, 17.89 sec., and white, 21.23 sec. Brown and wild showed differential sensitivity to vibration. Environmental factors of vibration, light, temperature and food affected the response, which suggests that this "tropistic" behavior is not exclusively hereditary.—*C. M. Louttit* (Indiana).

5528. **Sgonina, K. Über das Farben- und Helligkeitssehen des Meerschweinchens.** (The color and brightness vision of the guinea-pig.) *Z. wiss. Zool.*, 1936, **148**, 350–363.—(*Biol. Abstr.* XI: 13703).

5529. **Shen, N. C. A study in the differential limen of "size" discrimination by white rats, with special reference to the influence of brightness in determining such a discrimination.** *Chin. J. Psychol.*, 1937, **1**, 192–220.—The problem is to study "size" discrimination in the albino rat more systematically by determining the differential limen in distinguishing two solid circles (with positive reaction to the larger) in Lashley's jumping apparatus with modifications. Altogether three experiments were performed. The results show among other things that (1) the differential limen for "size" discrimination varies from 8.3% to 13.3% of the constant size, all being very much smaller than Lashley's determination; (2) overtraining tends to strengthen relative reactions but seems to have no influence on the magnitude of the differential limen; (3) the fineness of the limen values found here may be explained as probably due to the particular experimental procedure adopted; and (4) in discrimination between two circles of unequal areas brightness plays a more important role than size in determining the animal's reaction. The term "size discrimination" is too vague; a more appropriate designation for the kind of reaction investigated here would be "brightness-size discrimination."—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5530. **Sinnot, J. J., & Rauth, J. E. Effect of smoking on taste thresholds.** *J. gen. Psychol.*, 1937, **17**, 151–153.—Thresholds for sugar and salt were found to be high in smokers, but during a period of several days during which 6 smokers had abstained their thresholds fell to the level of non-smokers.—*H. Schlosberg* (Brown).

5531. **Sisson, E. D. A case of voluntary control of accommodation.** *J. gen. Psychol.*, 1937, **17**, 170–174.—This paper describes a number of tests on a woman who could change accommodation independently of fixation. She differed from Carr's subject in certain ways, particularly in that accommodation played no essential part in her depth perception.—*H. Schlosberg* (Brown).

5532. **Söllinger, H. Leistungskontrolle in den leichtathletischen Übungen bei blinden Jugendlichen.** (Performance controls in light athletic exercises of blind youths.) *Dtsch. Sonderschule*, 1937, **4**, 320–324.—Four psychological impulses lie in the performance controls of sport for the blind: (1) the consciousness of being controlled and contact with the possibility of obtaining a measuring stick for individual performance; (2) imagining the appearance of successively better performances; (3) comparison with performances of comrades; and (4) comparison with the average performances of the non-blind. The last is psychologically of greatest significance.—*P. L. Krieger* (Leipzig).

5533. **Spence, K. W. The differential response in animals to stimuli varying within a single dimension.** *Psychol. Rev.*, 1937, **44**, 430–444.—American psychologists anticipated the Gestalt movement in recognizing the necessity of interpreting the differential response of animals to stimuli differing in degree in terms of the relational character of the stimulus situation. But experiments show that the response to relationship is not universal. A previous article by the author set forth a theoretical schema, based on stimulus-response principles, explaining discrimination learning as a cumulative process of strengthening the excitatory tendency of the positive stimulus cue by reinforcements of responses to it while the negative stimulus receives no such reinforcement. Eventually the difference between the excitatory strengths of the positive and negative cue stimuli reaches a minimum necessary to insure a consistent response to the positive stimulus. In the present article it is pointed out that where continuous dimensions as size and brightness are concerned, some transfer of training could be expected, at least between nearby members of a series. Experimental results on animals and humans are shown to be consistent with a theoretical curve of irradiation in which extent of generalization varies with size of stimulus. Gestalt theory fails to explain them.—*A. G. Bills* (Cincinnati).

5534. **Stock, W. Über eine bis jetzt nicht beschriebene, rasch verlaufende Pigmentdegeneration der Netzhaut mit vollständiger Verblödung.** (A hitherto undescribed pigmentary degeneration of the retina rapidly progressing to complete blindness.) *Klin. Mbl. Augenheilk*, 1936, **97**, 577.—The cause of the reported case of this disease is a "progressive focal neurodegeneration," resulting in the severest type of degeneration of the retinal ganglion cells, rods and cones, and nerve fibers.—*P. L. Krieger* (Leipzig).

5535. **Studnitz, G. v. Die retinale Säurebildung.** (Formation of acid in the retina.) *Pflüg. Arch. ges. Physiol.*, 1937, **238**, 802–813.—The purely rod retina of the porpoise does not become acid on illumination. The previously dark-adapted isolated fish retina does become acid when exposed to light. The progressive increase in acidity of the isolated retina as a function of exposure time to light is related to the decreased regeneration of visual purple in the isolated retina. Acid formation increases in proportion to increase in light intensity. Immediately after illumination begins, acid formation decreases, finally (after 20–25 min. of illumination) to increase again. This runs parallel to cone and pigment migration and bleaching of visual purple. The effect of colored light on acid formation is proportional to cone and pigment migration and degree of bleaching of the cone visual substance. Yellow has the strongest effect.—*M. A. Rubin* (Worcester State Hospital).

5536. **Stuhlman, O., Jr. The nonlinear transmission characteristics of the auditory ossicles.** *J. acoust. Soc. Amer.*, 1937, **9**, 119–128.—A detailed analysis was made of the size, shape and methods of articulation of the auditory ossicles, and a large model was made of them in order to study their method of transmitting sound vibrations. The relations are such that the ossicles move in more readily than they move out. Furthermore, the transmission, in terms of both force and displacement, is both nonlinear and asymmetrical, and sufficiently so to account for the production of both odd and even harmonics in the ear.—*S. S. Stevens* (Harvard).

5537. **Sun, C. Y., & Luh, C. W. Brightness reversal in form discrimination of the rat as compared with a young child.** *Chin. J. Psychol.*, 1936, **1**, 101–114.—The ability to resist confusion at the reversal of brightness values of the figure and the ground is used as a test for the perception of form as such. A 16-months-old child with very rudimentary language habits made the brightness reversal readily with two triangles (one with apex up and the other down) on two toy carriages. In the case of 4 adult rats (2 albino and 2 gray), two pieces of jumping apparatus were used, one painted white and the other black. They failed to make the reversal with two triangles, two pairs of brackets, and two single slanting stripes. White figures on black and the same figures black on white were learned as separate problems. Cumulative training of this kind did not enable them to make the reversal, though their retention for the separate pairs of problems was remarkable. The rats can see the difference between the bounded areas with more or less clear contours (as clear as the image-forming power of their optical systems permits) and with the main axes lying in different directions, quite irrespective of the white-black relationship between these bounded areas and their grounds. In other words, the rats see these particular *forms*. Also, with these rats at least this ability is neither permanent nor general. The difficulty seems to be more cerebral than retinal; it is certainly not optical.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5538. **Tait, W. J. A clinical study of the validity of a new procedure for measuring visual acuity.** *Amer. J. Optom.*, 1937, **14**, 302–307.—Comparisons of acuity ratings for 439 subjects made with the Snellen chart and with the telebinocular indicate that the latter tends to give a slightly higher rating, although differences are not consistently in this direction. The maximum deviation from the accepted standard is apparently about 10%.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

5539. **Tatibana, Y. Sikisai no sinri.** (Psychology of colors.) Tokyo: Tôen-Syobô, 1936. Pp. 285. Yen 2,50.—The author dwells on the purely psychological problems of colors. Some of the chapters are: memorized and transformed colors, colors in dreams, and the color feeling of the Japanese.—*T. Chiba* (Sendai).

5540. **Waechter, H. Binaurales Hören in Abhängigkeit von Intensität- und Zeitdifferenzen.** (The dependence of binaural hearing on intensity and time differences.) Kiel: KZ-Druckerei, 1937. Pp. 47.—*R. R. Willoughby* (Brown).

5541. **Walls, G. L. Head movements in birds.** *Science*, 1937, **86**, 328.—Images at the extremes of a vertical or horizontal head movement cannot be stereoscopically fused as claimed by Clark (*Science*, **86**, 223–224). The process of "rapid peering" and vertical and horizontal head movements can aid in the judgment of distance in birds only by the principle of parallax.—*F. A. Mote, Jr.* (Brown).

5542. **Watson, N. A. Hearing of speech by bone conduction.** *J. acoust. Soc. Amer.*, 1937, **9**, 99–106.—A method for testing hearing of speech has been developed on the basis of articulation testing methods, using a special type of electrodynamic vibrator. Factors investigated included the force of application of the vibrator, the size of the button, the effect of closing the ear canals, and the effect of frequency and amplitude distortion. The results showed that the hearing of speech by bone conduction may attain as high a degree of perfection as that attained by the more usual method of air conduction.—*S. S. Stevens* (Harvard).

5543. **Weel, P. B. v. Über die Lichtempfindlichkeit der Ambulakralfüsschen des Seesterns *Asterias rubens*.** (The light sensitivity of the ambulacral feet of the starfish *A. rubens*.) *Arch. néerl. Zool.*, 1935, **1**, 347–353.—(*Biol. Abstr.* XI: 13672).

5544. **Welsh, J. H. Further evidence of a diurnal rhythm in the movement of pigment cells in eyes of crustaceans.** *Biol. Bull., Woods Hole*, 1935, **68**, 247–252.—(*Biol. Abstr.* XI: 11010).

5545. **Welsh, J. H., & Chace, F. A., Jr. Eyes of deep sea crustaceans.** *Biol. Bull., Woods Hole*, 1937, **72**, 57–74.—Description of the comparative anatomy and physiology of the eyes of three species of

Acanthephrids having different vertical distribution in the sea water.—*D. J. Ingle* (Mayo Foundation).

5546. **Zevin, N. A. A plea for better thinking and a sounder background of physiological knowledge for our orthoptic procedures.** *Amer. J. Optom.*, 1937, 14, 261–268.—The author considers the physiological changes involved in muscular contraction and suggests that more careful attention to the facts which he reviews would lead to some modifications in orthoptic treatment. For instance, prolonged periods of muscular exercise may be detrimental because of accumulation of fatigue products. Instead of 20 minutes of uninterrupted exercise, alternation of 5-minute periods of exercise and rest is recommended. Again, very slow exercises may require more additional energy than is justified by the increased duration of the contraction. Heat and massage are suggested as means to speed up muscle action. The author argues that because only one of two simultaneously applied stimuli is usually effective, the combination of spheres and cylinders to effect relaxation of accommodation may be inefficient because more than one nerve pathway is assumed to be involved. He also claims that increase in adduction after exercises with base-in prisms is explained by an overexcitability of a reflex which has been inhibited.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

[See also abstracts 5402, 5411, 5422, 5470, 5471, 5475, 5476, 5555, 5557, 5595, 5622, 5653, 5661, 5824, 5865, 5873, 5922, 6011, 6023, 6043, 6045.]

LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

5547. **Abe, M. Sii no sinri.** (Psychology of thinking.) Tokyo: Tôen-Syobô, 1937. Pp. 262. Yen 2,50.—The author considers theoretical and practical investigations on thinking and imagination. —*T. Chiba* (Sendai).

5548. **Asratian, E. Vliianie pishchevogo bezuslovnogo refleksa na sootvetstvuiushchie uslovnye refleksy.** (Influence of an unconditioned food reflex upon the corresponding conditioned reflexes.) *C. R. Acad. Sci. U.R.S.S.*, 1934, 2, 30–33.—(*Biol. Abstr.* XI: 13711).

5549. **Bolles, M. M. The basis of pertinence.** *Arch. Psychol., N. Y.*, 1937, No. 212. Pp. 51.—The investigation consisted of a study of qualitative differences in certain of the thinking processes of aments, dements, and normal children of approximately the same mental age. The problem was to establish those characteristic differences or similarities between these groups that could be shown by a qualitative analysis of performance. A battery of tests was given to American-born males between 30–40 years and to 10 boys. The subjects proceeded in different ways—some performed in a concrete way, others in an abstract way. There was consistency of individual performance over the series of test situations presented. Normal children were able to shift from one aspect of a situation to another, while aments and dements did not make voluntary shifts. Results indicate that there are different ways in which objects are classified; the "basis of pertinence" may be one of the following types: identity, partial identity, co-functionality, categorical similarity.—*E. M. Achilles* (Columbia).

5550. **Brandhändler, V. S., & Muzykantov, V. A. K voprosu o vliianii dlitelnykh pishchevykh rezhimov na vysshuiu nervnuiu deiatelnost sobak.** (Effect of prolonged diets on the higher nervous activity in dogs.) *Arkh. biol. Nauk*, 1933, 33, 81–96.—(*Biol. Abstr.* XI: 11021).

5551. **Cheng, P. L. Pattern cutting, pattern tracing, and ball rolling as complex eye-hand coordination tests.** *Chin. J. Psychol.*, 1937, 1, 230–251.—46 men and 10 women, whose ages ranged from 18 to 33 years, took 5 motor tests in the following order: (1) steadiness test, (2) tracing test, (3) ball rolling test, (4) pattern cutting test, and (5) pattern tracing test. The correlation coefficients found between pattern cutting, steadiness, tracing, and pattern tracing vary from .013 to .183 and are too low to be significant; those between pattern cutting and ball rolling are higher, being .433 ± .073 for time (speed) and .28 ± .083 for errors (accuracy). Since eye-hand coordination is complicated and since the two complex performances, pattern cutting and ball rolling, reveal typical eye-hand coordination, their low correlations with the basic motor functions, viz., steadiness, accuracy and speed of movement, are to be expected. The author believes from the results obtained here that a complex activity is a behavior pattern as a whole, which can neither be analyzed into nor built from its fundamental or basic elements such as steadiness, accuracy, and speed of movement. In other words, each behavior pattern has its own motor configuration.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5552. **Cook, S. W., & Harris, R. E. The verbal conditioning of the galvanic skin reflex.** *J. exp. Psychol.*, 1927, 21, 202–210.—"This study has attempted a verification of the following hypothesis: the conditioning of the galvanic skin response in the human adult differs from the customary conditioning procedure in that, under the conditions of this experiment, (a) this response is established by means of a process of verbal conditioning, and (b) it is therefore not established as a result of a series of paired inadequate-adequate stimuli combinations. The experimental findings confirming this hypothesis are as follows: (1) A conditioned galvanic response was obtained by merely instructing the subject that electric shock (adequate stimulus) would follow a green light (inadequate stimulus). (2) The actual presentation of a series of inadequate-adequate stimuli combinations did not increase the strength of the conditioned response beyond its strength following the verbal association made during the instructions. (3) No consistent difference in strength of conditioned response was found after conditioning series of 1, 15,

and 30 trials. (4) Despite a conditioning series of 30 light-shock combinations, either a marked weakening or complete elimination of the conditioned response resulted from instructing the subject that the shock would not longer follow the light."—*H. W. Karn* (Pittsburgh).

5553. **Cowles, J. T. Food-tokens as incentives for learning by chimpanzees.** *Comp. Psychol. Monogr.*, 1937, **14**, No. 5. Pp. 96.—5 young chimpanzees learned to select food tokens (disks) from differently colored non-food tokens. The food tokens were then used as "indirect" rewards for solution of discrimination, delayed reaction, and other problems. It was possible to make the animals work for from 10 to 36 tokens (one per trial) before exchanging them for food. Food tokens were slightly less efficacious than food, but much more efficacious than tokens having no food-exchange value. Certain analogies with higher order conditioning and other learning phenomena are considered. "The uniqueness of the token as used in this investigation seems to be particularly in its object-characteristics, its manipulability, its potentiality as a source of maintained external stimulation, and in the fact that it must be given up or exchanged for a primary goal. These characteristics and conditions apparently give to the food-token, as we have used it, great effectiveness in the learning of new habits and unusual resistance to 'experimental extinction' as compared to instrumental acts and primary or higher orders of conditioned stimuli." Bibliography.—*N. L. Munn* (Peabody).

5554. **Durkin, H. E. Trial and error, gradual analysis, and sudden reorganization. An experimental study of problem solving.** *Arch. Psychol., N. Y.*, 1937, No. 210. Pp. 85.—Problem solving in human adults is never completely blind, although one may proceed by manipulating the material without seeing ahead the relations of moves to the goal. An experiment was conducted on 28 subjects. The materials were simply organized series of two-dimensional construction puzzles. Seeing the relationship of the material to the goal enters in at the level of so-called "insightful" thinking, but that process was there in nucleus (though but vaguely) from the beginning in the "blanket" variety of trial and error. Whether this is an independent process or is based genetically on trial and error or conditioned response is not established. One can distinguish three main types of solution, called forms of thinking: (1) trial and error, (2) sudden reorganization, (3) gradual analysis. The same processes are found throughout—observation, recall, seeing relations, and attention to the goal.—*E. M. Achilles* (Columbia).

5555. **Elliott, F. R. Memory for visual, auditory, and visual-auditory material.** *Proc. Ind. Acad. Sci.*, 1937, **40**, 193–198.—Memory for advertising material presented visually, auditorily and in combination was measured by recall and recognition methods. The most efficient method of presentation was auditory-visual, with auditory and visual following. Descriptive trade names were recalled better than non-descriptive.—*C. M. Louttit* (Indiana).

5556. **Evans, S. How rats learn the simple alternation problem in a temporal water maze.** *J. genet. Psychol.*, 1937, **50**, 243–275.—All of the 14 rats tested became oriented toward the goal on both choices of the simple alternation problem and thus developed a blind alley response on choice I. The cul-response was eliminated by 12 rats. The elimination occurred by means of a hierarchy of cul-shortening transition steps. The transition step in the cul-shortening hierarchy which fell at the choice point resulted in hesitation behavior. Early hesitation responses usually ended in entrance into the blind alley, but with practice entrance into the blind alley was inhibited, after hesitation at the choice point. Modification of the stimulating situation resulted in a reversion of one or more steps in the hierarchy of types, with rats in all stages of the hierarchy. Of 12 rats tested, 8 were able to extend the learned two-choice simple alternation series, *rl*, to four choices, *rlrl*, in from 40% to 87% of the trials.—*E. Heidbreder* (Wellesley).

5557. **Farnsworth, P. R. Continued training with the omission of certain Nebenreize.** *J. genet. Psychol.*, 1937, **50**, 277–282.—Groups of students were trained on the Koerth pursuit rotor and the Dearborn-Coover code test for five (or ten) trials in the presence of a sound of about 70 decibels of loudness. During the following five trials half of the subjects heard the noise and half did not. Neither significant nor consistent differences between the performances of the two groups appeared. Though it is conceivable that a true decrease in score, due to the change in Nebenreize, was masked by an increase due to elimination of distraction, the data indicate that the elimination of prominent Nebenreize is not always harmful to one's skill.—*E. Heidbreder* (Wellesley).

5558. **Galperin, S. I., Skipin, G. W., & Woskresensky, L. N. Über die Registrierung der bedingten motorischen Nahrungsreaktion bei Affen.** (The registration of conditioned motor food reactions in apes.) *Z. ges. exp. Med.*, 1934, **93**, 272–275.—(*Biol. Abstr.* XI: 11030).

5559. **Ghiselli, E. E. A comparison of methods of scoring maze and discrimination learning.** *J. gen. Psychol.*, 1937, **17**, 15–28.—"The three common methods used for scoring subjects' performance on maze and discrimination learning problems are (a) the number of trials taken to reach an arbitrary criterion of learning, (b) the number of errors made in fulfilling that criterion, and (c) the number of errors made in a fixed number of trials." The writer suggests another method, namely, "Running each subject until the total number of errors made by him falls outside the range to be expected on the basis of chance performance." Data taken from experiments with rats on a maze and a discrimination box were scored by each method and the results compared. The inter-relationships between the various measures

and the advantages of each are discussed in the paper.—*H. Schlosberg* (Brown).

5560. **Gismondi, —. [The education of instinct in nurslings.]** *Nipologia*, 1936, No. 2, 87.—*L. Canestrelli* (Rome).

5561. **Gordon, K. Memory viewed as imagination.** *J. gen. Psychol.*, 1937, **17**, 113–124.—With the aid of many quotations and illustrations, the writer makes 12 major points to show the relation between memory and imagination. Memory is not passive, but is "a process of assimilation and reformation of the materials of experience. . . . This is the very essence of imagination."—*H. Schlosberg* (Brown).

5562. **Harsh, C. M. Disturbance and "insight" in rats.** *Univ. Calif. Publ. Psychol.*, 1937, **6**, 163–168.—23 rats were used on the Tolman-Honzik "insight maze" in an attempt to determine the relation of visible signs of emotional disturbance in a special blocked situation to the subsequent presence or absence of "insight" behavior. The animals evidencing the greatest emotional disturbance were slightly more apt than "stable" rats to show "insight." Speed of learning to prefer the shorter path seemed slightly related to "insight" behavior.—*F. A. Mote, Jr.* (Brown).

5563. **Hollingsworth, L. S. The importance of studying mental deviates.** *J. consult. Psychol.*, 1937, **1**, 73–75.—Society has yet to recognize the significance and importance of the fact that the median IQ of delinquents is 85 and that guidance of the unstable cannot be effective. Similarly it has still to be emphasized that effective original thinking is restricted to those few individuals who are "very far above the average in mental capacity. Creative thinking of a high order, in early adulthood, is not discovered under 170 IQ and rarely under 180 IQ. Children testing at or above 180 IQ (S–B, 1916) are very rare in the population—roughly, perhaps, as about 1 in 100,000." A systematic study of mental deviates is desirable to establish complete and reliable methods of identification, and then "we need to know what mental deviations mean in terms of the world's work." Portrait of author.—*P.S. de Q. Cabot* (Simmons).

5564. **Hovland, C. I. The generalization of conditioned responses; I. The sensory generalization of conditioned responses with varying frequencies of tone.** *J. gen. Psychol.*, 1937, **17**, 125–148.—The galvanic skin response to shock was conditioned to one of four tones. The tones were equated for loudness, and differed in frequency in steps of 25 j.n.d. The experiments were performed in a soundproof room, with careful control of temporal factors and of order of presentation. Two groups (20 subjects each) were used to balance out extraneous factors. Pooled results showed very marked generalization, in that the reinforced tone was most effective, while the response to neighboring tones fell off in a negatively accelerated gradient. By Pavlov's contrast method of establishing a discrimination the generalization was diminished. A rest of 24 hours increased the generalization. In further experiments the generalization of extinctive inhibition was shown to have a gradient similar to that of excitation. The results can be interpreted in terms of two processes, excitation and inhibition, but the writer points out that only one process need be involved.—*H. Schlosberg* (Brown).

5565. **Hsia, Y. The effect of morphine on the learning ability, general activity, and body weight of the rat.** *Chin. J. Psychol.*, 1936, **1**, 115–127.—Rats injected with morphine hydrochloride (in moderate dosages of 10 mg. per kilo body weight) were compared with rats injected with normal saline in three different respects. The following results were obtained: (1) In learning a vertical maze the morphinized rats required more time and trials and made more errors than the saline-injected rats, the criterion of learning being three successive one-error trials. (2) In general activity the drugged rats were less active than the controls under all the conditions studied. (3) In bodily growth, the morphine-injected rats not only suffered from retarded development when injection was first begun, but they actually lost body weight; but they later began to increase in weight again. The results all indicated that morphine is a depressant. The vertical maze which was especially designed for the experiment has been described.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5566. **Kotliarevskii, L. I. Obrazovanie zrachkovykh sulovnykh refleksov i diferentsirovki na neposredstvennyi i rechevoi razdrazhiteli.** (The formation of pupillary conditioned reflexes and of a differentiation in response to both direct and verbal stimuli.) *Ark. biol. Nauk*, 1935, **39**, 477–489.—English summary.—(*Biol. Abstr.* XI: 13724).

5567. **Krasnogorski, N. I. Neue Ergebnisse der Erforschung der physiologischen Tätigkeit des Gehirns im Kindesalter.** (New studies on the physiological activity of the brain in childhood.) *Jb. Kinderheilk.*, 1935, **144**, 255–277.—(*Biol. Abstr.* XI: 11057).

5568. **Levin, S. L. Ob osobennostiakh uslovno-reflektornoi deiatelnosti v gipnoticheskom sostoianii u detei. I.** (Peculiarities of the conditioned-reflex activity during hypnosis in children. I.) *Fiziol. Zh. S.S.S.R.*, 1934, **17**, 196–206.—German summary.—(*Biol. Abstr.* XI: 11062).

5569. **Maier, N. R. F. Reasoning in rats and human beings.** *Psychol. Rev.*, 1937, **44**, 365–378.—This is an attempt to formulate a theory of reasoning which includes both animals and humans, and which makes it both qualitatively different and of a higher order than learning. It consists in the combination of previously isolated experiences in a novel way, adequate to meet a situation. Past experiences and habitual modes of solving problems may be more detrimental than helpful, because the process of integrating requires getting a correct direction in thought, and habitual directions are likely to be misleading; and, when once established, a wrong direction tends to persist. Experiments on both

animals and humans are described illustrating these points. The experience of insight may or may not accompany reasoning. An introspective description of one's experiences leaves out the important steps or selects the irrelevant steps in the process. This theory explains the fact that good learning ability and good reasoning ability do not necessarily correlate highly; that the best discoveries in a field of science may be made by men without a background in that field, or by young men, or in moments of inadvertence. Reasoning is creative.—*A. G. Bills* (Cincinnati).

5570. **Malkiman, I. V. K voprosu o vliianii dlitelnogo uglevodistogo i zhirovogo pitaniia na vysshuiu nervnuiu deiatelnost sobak.** (Effect of prolonged carbohydrate and fat diet on the higher nervous activity in dogs.) *Arkh. biol. Nauk*, 1933, **33**, 97–105.—German summary.—(*Biol. Abstr.* XI: 11067).

5571. **Martsinkevich, O. K., & Petrovskii, V. V. O kombinirovannom deistvii uslovnogo tormoza i diferentsirovki.** (Combined action of conditioned inhibition and differentiation.) *Fiziol. Zh. S.S.S.R.*, 1934, **17**, 32–37.—German summary.—(*Biol. Abstr.* XI: 13727).

5572. **Menzies, R. Conditioned vasomotor responses in human subjects.** *J. Psychol.*, 1937, **4**, 75–120.—Vasoconstriction, excited by immersing one hand in ice-water, was conditioned to: a bell, a buzzer, the subject's whispered repetition of a nonsense word with the addition of presentation by the experimenter, movements and postures of S's body, a pattern of light. Also, vasodilation was conditioned to the sound of a buzzer concurrently with vasoconstriction to a verbal stimulus. The frequency and the extent of both original and conditioned vasomotor changes were determined by taking continuous records of skin temperature from one hand, obtained with a thermopile and highly sensitive galvanometer. Conditioned responses were established in 12 out of 14 subjects; one was uncertain and one a failure due to lack of regular constriction to cold stimulation. Stable c.r.'s were established by 9 to 36 combinations of substitute stimulus and original stimulus. The c.r., more or less latent for some time after conditioning, appeared with maximum frequency at the second test several days afterwards. Retention of the c.r. varied with the S, with the nature of the substitute stimulus, and with the number of combinations; it was 31 days in several, and in one S the c.r. was present after 92 days. No evidence of experimental extinction appeared in 10 S's conditioned to auditory, verbal, and visual stimuli; in fact, unreinforced repetitions of the substitute stimulus resulted more frequently in an increased vasomotor response. In 3 S's where postural stimuli were used slow irregular extinction appeared. No striking differences appeared between conditioning to verbal and to non-verbal stimuli. Characteristic changes in skin temperature were found to occur with excitement or anxiety, affectively toned thinking, and mild fatigue. Theoretical conclusions in accord with those of Hunter and Hudgins are drawn.—*J. McV. Hunt* (Brown).

5573. **Muenzinger, K. F., Dove, C. C., & Bernstone, A. H. Serial learning: the bi-directional goal gradient in the endless maze.** *J. genet. Psychol.*, 1937, **50**, 229–241.—The "endless maze" consisted of four identical mazes arranged as the sides of a square with the food boxes at the four corners. As an animal left a food box it went directly into the next maze. The experimental or goal-to-goal group of rats, given 24 trials on one day by going around the square six times, showed a forward-backward elimination of errors, i.e. the first and last choices were learned before the middle ones. The control or start-to-goal group, given one trial per day for 24 days in one of the mazes, showed the typical backward elimination of errors. It is maintained that the goal-to-goal situation gives the complete goal gradient, which is bi-dimensional in its fundamental form, and that the start-to-goal situation gives only the first half of the gradient. Hull's goal gradient hypothesis is criticized. A hypothesis is outlined to account for the bi-directional goal gradient, which is considered a special case of the Thorndike effect. Conflicting experimental evidence from human learning is explained as the effect of masking factors. —*E. Heidbreder* (Wellesley).

5574. **Müller-Freienfels, R. Steigerungsmöglichkeiten der Leistungsfähigkeit.** (The possibility of raising the ability to perform.) *Industr. Psychotech.*, 1937, **14**, 97–108.—A considerable variety of functions may be improved if a high degree of concentration upon the practice can be maintained, and if the entire function can be practiced as a unit.—*J. C. G. Seidl* (Manhattan College).

5575. **Ohwaki, Y. Gakudô no tyokkanzô.** (Eidetic imagery of school children.) Tokyo: Tôen-Syobô, 1936. Pp. 266. Yen 2,50.—Part I. Eidetic images in Japanese school children. Part 2. Pedagogical importance of eidetic imagery. Part 3. Investigation and theory of E. R. Jaensch and its criticism.—*T. Chiba* (Sendai).

5576. **Ohwaki, Y. Hyôsyô no sinrigaku.** (Psychology of representation.) Tokyo: Tôen-Syobô, 1937. Pp. 307. Yen 2,50.—Part 1. Introduction to the psychology of representation. Part 2. Fundamental problems of the psychology of representation. Part 3. Studies of the experience of representation. —*T. Chiba* (Sendai).

5577. **Petropavlovskii, V. P. K metodike uslovnodvigatelnykh refleksov.** (Methods of conditioned motor reflexes.) *Fiziol. Zh. S.S.S.R.*, 1934, **17**, 217–226.—German summary.—(*Biol. Abstr.* XI: 11081).

5578. **Rosenthal, I. S. Zavisimost pishchevykh uslovnykh refleksov ot vesa sobaki.** (Dependence of conditional alimentary reflexes on weight in the dog.) *Arkh. biol. Nauk*, 1934, **34**, 63–67.—German summary.—(*Biol. Abstr.* XI: 11091).

5579. **Schlosberg, H. The relationship between success and the laws of conditioning.** *Psychol. Rev.*, 1937, **44**, 379–395.—The results of certain experi-

ments in the field of conditioning suggest that they are related to two different sets of "laws" of learning rather than one. Some situations involve "success" as a fixating factor, in others it is quite irrelevant. The theory is advanced that there are two distinct types of learning, (1) simple conditioning, which applies particularly to diffuse, preparatory responses, and (2) "effect" learning, applying to precise, adaptive responses of the trial-and-error or problem-solving type. The name "conditioning" should be reserved for the former.—*A. G. Bills* (Cincinnati).

5580. **Stephens, J. M. Data bearing on the conditioning of voluntary reactions.** *J. exp. Psychol.*, 1937, **21**, 236–239.—Description of a control experiment which was performed as an extension of the author's earlier study, the primary purpose of which was to investigate the direction of conditioning (*J. exp. Psychol.*, 1936, **19**, 77–90). The data are offered in order to make the earlier experiment more useful to those who wish to use it for the extraneous purpose of investigating the conditioning of voluntary reactions.—*H. W. Karn* (Pittsburgh).

5581. **Sumita, K. Tinô to tinô-kensa.** (Intelligence and intelligence tests). Tokyo: Tôen-Syobô, 1937. Pp. 237. Yen 2,50.—Introduction. Individuality and intelligence. I. The basis of general intelligence measurement. II. Mechanism of general intelligence.—*T. Chiba* (Sendai).

5582. **Susukita, T. Kioku no sinri.** (Psychology of memory.) Tokyo: Tôen-Syobô, 1936. Pp. 328. Yen 2,50.—Contents: Introduction. I. General data of memory; 1. Retention, 2. Reproduction, 3. Forgetting, 4. Relation to intelligence, feeling and will, 5. External influences on memory. II. Differential aspects of memory; 1. Individual differences, 2. Memory and age, 3. Sex differences, 4. Memory and social classes, 5. Race differences. III. Abnormal memory; 1. Extraordinary memory, 2. Pathological memory, 3. Conditional-genetic analysis of extraordinary memory.—*T. Chiba* (Sendai).

5583. **Tanaka, K. Tôyô shominzoku no chinô ni kansuru hikaku kenkyû.** (Comparative studies on the intelligence of several Oriental races.) No. 1, 1936, pp. 179; No. 2, *Tokyo Bunrika Daigaku Bunka Kiyo*, 1937, **14**, pp. 442.—Oriental races here dealt with are the island Japanese, those inhabiting Korea, and the Korean aborigines. They were tested with the author's B-type scale of intelligence and were compared in terms of standard scores (x/σ). It was found that in intelligence the children of the island Japanese stand highest; then come those inhabiting Korea, and the Korean aborigines stand lowest. These results are explained in connection with the level of civilization and social and economic status of their parents.—*R. Kuroda* (Keijo).

5584. **Vaughn, C. L. Factors in rat learning. An analysis of the intercorrelations between 34 variables.** *Comp. Psychol. Monogr.*, 1937, **14**, No. 3. Pp. 41.—"Intercorrelations between a set of 34 variables, derived from twelve tests commonly used with the rat, plus age and motivation variables were analyzed by Thurstone's centroid method of factor analysis and the reference axes rotated orthogonally to maximize the number of zeros in the factorial matrix. Eight factors adequately account for the intercorrelations. Four factors were tentatively named speed, wildness-timidity, associative or insight learning, and transfer. The other factors were left unidentified." Suggestions for modifications of the tests are offered. Bibliography.—*N. L. Munn* (Peabody).

5585. **Voss, H. A., & Dunlap, J. W. Determination of the Heinis personal constant.** *J. consult. Psychol.*, 1937, **1**, 57–61.—This article presents nomographs and directions for their use in determining the ratio of a function of mental age to a function of chronological age which is known as the Heinis personal constant.—*F. A. Mote, Jr.* (Brown).

5586. **Waters, R. H. The wall-seeking tendency and maze learning in the white rat.** *J. Psychol.*, 1937, **4**, 23–26.—Rats running a maze-path close to a wall made significantly more errors toward the wall than away from it, while rats running a maze-path equidistant between two walls made proportionally equal numbers of errors to the right and left. It is concluded, therefore, that this "wall-seeking tendency" might determine the rat's choice of path in certain maze situations, especially one previously reported by the investigator.—*J. McV. Hunt* (Brown).

5587. **Weinreich, H. Beobachtungs- und Denkproben in Alltag.** (Daily problems of observation and thought.) *Industr. Psychotech.*, 1937, **14**, 108–114.—The author propounds a number of observational problems drawn from every-day life, but offers no solutions.—*J. C. G. Seidl* (Manhattan College).

5588. **Wendt, G. R. Two and one-half year retention of a conditioned response.** *J. gen. Psychol.*, 1937, **17**, 178–180.—Fore-leg flexion in a dog was conditioned to a tone. 2½ years after the training had been completed the animal responded by flexion to 16 out of 20 tones (1000 cycles, 70 db above human threshold). A later test was negative, possibly because of different conditions. The long retention is explained by the absence of competing behavior systems, and supports the view that forgetting is active.—*H. Schlosberg* (Brown).

[See also abstracts 5390, 5414, 5416, 5475, 5476, 5610, 5637, 5685, 5733, 5734, 5824, 5827, 5848, 5859, 5870, 5923, 5952, 6004, 6063.]

MOTOR AND GLANDULAR RESPONSES

(incl. Emotion, Sleep)

5589. **Aldrich, V. C. A theory of ball-play.** *Psychol. Rev.*, 1937, **44**, 395–403.—All sports involving marksmanship are enjoyed because they involve the activity and development of the "acquired body," whose accurate distance-reach exceeds that of the "native body." The latter is merely the physiological organism, limbs, etc. The former consists of such objects as we use to extend our

control beyond the body, as hammers, rifles, balls, etc. Just as sight is "anticipative touch," so ball-throwing is a different sort of distance-experience whose clearcutness depends on accuracy of aim.—*A. G. Bills* (Cincinnati).

5590. **Barbu, Z. Minciuna în lumea animalelor.** (Lying by animals.) *Freamatul Scoalei*, 1937, **3**, 5–11.—A psychological interpretation of mimesis, sympathesis, allomimesis, phytomimesis, zoomimesis. There is no question of consciousness or intention; therefore such manifestations are not true lying. They can be called, however, unconscious lying.—*N. Margineanu* (Cluj, Rumania).

5591. **Bierens de Haan, J. A. Probleme des tierischen Instinktes.** (The problem of animal instinct.) *Naturwissenschaften*, 1935, **23**, 1–28.—After tracing briefly the history of the concept of instinct, the author reviews those types of activity which are usually cited as instinctive. All have in common self-preservative tendencies, except in circumstances where man introduces modifying factors. Though the carrying out of an instinctive act may vary in detail, the general purpose it serves is always the same. The fixity of instincts is not a characteristic of instincts as such, but is due to the acquired habits built upon the instinct. Although our meaning of instinct may have changed, it is still necessary to consider it the "nucleus of the animal psyche—an ultimate fact."—*G. F. J. Lehner* (Brown).

5592. **Bonvicini, G. Über Spiegelzeichnung. Ein Beitrag zur Überwertigkeit der rechten Gehirnhemisphäre.** (Concerning mirror-drawing. A study of the dominance of the right hemisphere of the brain.) *Wien. klin. Wschr.*, 1937, **50**, 285–289.—*P. L. Krieger* (Leipzig/Munich).

5593. **Bruce, R. H. An experimental investigation of the thirst drive in rats with especial reference to the goal gradient hypothesis.** *J. gen. Psychol.*, 1937, **17**, 49–62.—Each of 34 rats was given 122 trials on a 17-foot runway which led to water. To vary the strength of the thirst drive the animals were deprived of water for 24 or 48 hours before the trials, and were given various amounts of water in the starting box, or half-way up the runway. The results indicated that one-fourth or more of the normal water intake, given before or during the run, decreased the speed of locomotion in the runway. A smaller amount (0.5 c.c., or 5% of the intake) increased the speed. Moistening the mouth and throat did not satisfy the drive. The goal gradient hypothesis fits only the 0.5 c.c. runs, for in all others the animal did not run more rapidly over the second half of the runway than over the first half.—*H. Schlosberg* (Brown).

5594. **Brunner, H. Über labyrinthäre und okulomotorische Übererregbarkeit.** (Labyrinthine and oculomotor super-excitability.) *Nervenarzt*, 1936, **9**, 242.—*P. L. Krieger* (Leipzig/Munich).

5595. **Buck, H. Ein Beitrag zur Lehre vom Drehschwindel und den Konstitutionstypen.** (A contribution to the theory of rotatory vertigo and constitutional types.) *Untersuch. Psychol. Phil.*, 1936, **11**, H. 2. Pp. 58.—Rotatory vertigo occurs when the accelerations employed draw the subject's attention in any manner to himself. It is explained by the contradiction of the static and kinesthetic sensations brought to consciousness. It does not occur when the subject concentrates his entire attention on a nonautomatic and not too easy manual activity (Baade-Bourdon test), in which case the vertiginous impressions cannot assert themselves. At the moment when the various partial impressions blend, vertigo ceases. An habituation to acceleration occurs. Persons with good objective capacity adapt quickly, schizothymics very slowly. Subjects with a tendency to perseveration stand acceleration poorly. Extraverts accommodate themselves rapidly and introverts very slowly to increases in angle.—*P. L. Krieger* (Leipzig).

5596. **Cate, J. ten. Rückenmarksreflexe bei Schildkröten.** (Spinal reflexes in turtles.) *Acta brev. neerl. Physiol.*, 1936, **6**, 63–64.—(*Biol. Abstr.* XI: 13716).

5597. **Cehak, C. Das psychomotorische Tempo nach Geschlecht und Rasse.** (Psychomotor tempo in relation to sex and race.) *Volk u. Rasse*, 1937, **12**, 275–280.—These studies were made on 822 men and 91 women by means of the sticking and point tests. The latter consists in touching as many points as possible in a circle 4–5 cm. in diameter within 5 sec. Women had always a higher tempo than men. Nordics had the slowest normal tempo; dark Ostics the quickest; Dinarics and blond Ostics were intermediate. In speed tests Nordics did better than Ostics. This is a characteristic of racial soul denoting greater will power and concentration. —*P. L. Krieger* (Munich).

5598. **Coonfield, B. R. Apical dominance and polarity in *Mnemiopsis leidyi* Agassiz.** *Biol. Bull. Woods Hole*, 1936, **70**, 460–471.—(*Biol. Abstr.* XI: 11004).

5599. **Davis, J. E. The effect of advancing age on the oxygen consumption of rats.** *Amer. J. Physiol.*, 1937, **119**, 28–33.—Oxygen consumption showed a gradual decrease throughout the life of 136 rats. Little difference was found between the sleeping rates of males and of non-oestrous females. Results are in accord with those for man found by Boothby, Berkson, and Dunn.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

5600. **Davis, R. C. The relation of certain muscle action potentials to "mental work."** *Ind. Univ. Publ. Sci. Ser.*, 1937, No. 5. Pp. 29.—The relationship between "mental work" (memorization, rotational addition, multiplication) and muscular phenomena (action potentials) was found by correlational analysis to be negative. Among the factors which might influence the relationships, practice and distraction were studied. The former decreases the associated muscular activity while the latter increases it.—*C. M. Louttit* (Indiana).

5601. **Dorcus, R. M., & Harrell, T. W. Some relations between initial body polarity and polarity during the psychogalvanic reflex.** *J. gen. Psychol.*,

1937, **16**, 489–491.—This paper reports an attempt to find the relations between potential and resistance changes during the PGR. Each of 68 subjects was tested, using a galvanometer without external nonpolarizable electrodes, and no external voltage. The direction and size of the deflection resulting from a pistol shot was compared with the original deflection caused by connecting the electrodes. In only 3 cases was the polarity reversed by the PGR. The results indicate that the relations of potential and resistance changes are complex.—*H. Schlosberg* (Brown).

5602. **Dunlap, S. C. The effect of voluntary activity on the knee-jerk.** *Comp. Psychol. Monogr.*, 1937, **14**, No. 4. Pp. 62.—The results of several experiments upon a total of 14 subjects suggest that various modifications of the knee-jerk are produced by a voluntary kicking backwards of the stimulated leg and by a kicking forward of the contralateral leg. Voluntary kicking forward of the percussed leg failed to modify the knee-jerk. Data on time of voluntary reaction, habituation, frequency distribution of knee-jerk times, and effect of strength of blow are reported. They are regarded as purely exploratory. The author concludes, tentatively, that "the knee-jerk, in the normal individual, is no simple segmental 'reflex,' but an integrated response of a complex nature." Extensive bibliography.—*N. L. Munn* (Peabody).

5603. **Essen, K. Über die Reaktionsform des vegetativen Nervensystems bei verschiedenen inneren Krankheiten, untersucht mit dem galvanischen Hautreflex.** (The form of reaction of the vegetative nervous system in different internal diseases, investigated by means of the galvanic skin reflex.) *Z. klin. Med.*, 1937, **132**, 191–226.—*R. R. Willoughby* (Brown).

5604. **Fisher, R. A. The wave of advance of advantageous genes.** *Ann. Eugen., Camb.*, 1937, **7**, 355–369.—A mathematical demonstration of the laws governing the spread of mutations having certain characteristics favorable for survival. This is based on the assumptions that the original population is distributed in a linear habitat, such as a shore line, that it occupies the habitat with uniform density, and that the range of the habitat is great as compared with the distance from parent to offspring. The velocity is shown to be proportional to the square root of the intensity of the selective advantage and to the standard deviation of the diffusion in each generation. The form of the wave is tabulated to show, for each percentage of the frequency of the mutant gene, the value of the gradient of the gene ratio and the position at which this percentage occurs relative to the effective center of the wave.—*J. W. Dunlap* (Rochester).

5605. **Fletcher, C. M. Action potentials recorded from an unstriated muscle of simple structure.** *J. Physiol.*, 1937, **90**, 233–253.—*M. A. Rubin* (Worcester State Hospital).

5606. **Fuller, J. L. Feeding rate of *Calanus finmarchicus*.** *Biol. Bull., Woods Hole*, 1937, **72**, 233–245.—These experiments support the view that the feeding activity of this copepod is automatic filtering. There is a diurnal feeding rhythm, with greater activity at night. Feeding was most rapid at 8° C., slower at 13° and 3°.—*D. J. Ingle* (Mayo Foundation).

5607. **Funke, G. L. Problems of plant growth.** *J. Physiol.*, 1937, **90**, 72–73P.—*M. A. Rubin* (Worcester State Hospital).

5608. **Gesell, R., & Moyer, C. Factors which determine the rate and depth of breathing.** *Amer. J. Physiol.*, 1937, **119**, 55–66.—Denervation of the carotid glands or of chemoreceptors in aortic regions was tried after double vagal block. The former favored increased tidal air at the expense of acceleration, while the latter favored acceleration. Complete denervation of chemoreceptors alone also favored acceleration. The results are interpreted as favoring central action of oxygen lack, although no hyperpnea resulted from complete denervation plus vagal block. Hypercapnia produced hyperpnea, which continued after such denervation and block, and in this regard indicated a stronger central factor than in the case of anoxemia. It is proposed that rate and depth are determined by a balance of reflexes from the central chemical control mechanism and that the effect of vagal proprioceptive reflexes tends to abbreviate the respiratory phase.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

5609. **Glanville, A. D., & Kreezer, G. The maximum amplitude and velocity of joint movements in normal male human adults.** *Hum. Biol.*, 1937, **9**, 197–211.—Measurements were made on 10 subjects. Amplitude was measured with a gravity pointer indicator. The number of measurements of the following parts were made: head, four; upper arm, five; forearm, three; hand at wrist, four; thigh, five; lower leg, one; foot at ankle, two. Both active and passive movements were measured. The velocity was measured with the aid of a kymograph record and analyzed in terms of a 45° movement. The results are given as averages with their probable errors; a bibliography on the amplitude of joint movements is included.—*O. W. Richards* (Spencer Lens Company).

5610. **Gordon, K. Imagination and emotion.** *J. Psychol.*, 1937, **4**, 121–138.—The question of the relation of imagination to emotion is answered thus: "Mere emotion does not produce works of art, nor anything else. . . . What emotion does do is to mark a crisis and to challenge us to an analysis of our interests to see why they conflict. To find a way out is the business of imagination—rather, that is what imagination is. . . . Within some framework of values man's life is lived. They set limits to his acts and furnish the motives to his imagination."—*J. McV. Hunt* (Brown).

5611. **Gray, G. W. Chemical foundations of mind.** *Harper's*, 1937, **174**, 509–519.—From studies of the energy requirements of the body in repose and in action Francis G. Benedict and his colleagues at the Nutrition Laboratory in Boston, one of the research

centers of the Carnegie Institution of Washington, have turned to the problem of energy requirements of mental effort. Seven individuals, including one woman, were selected as subjects in an experiment on this question. Five of these were university trained men, two being of professorial rank. The woman had been a professional accountant. All were in good health at the time of the experiment. Although each of the subjects professed a feeling of fatigue after prolonged mental activity, the actual measurements revealed little difference in the requirements of energy of the body when mentally reposed and when mentally active. Oxygen consumption rose 3 or 4%, but this can probably be accounted for by slight increases in the rates of heart beat and respiration and in the ventilation of the lungs, all changes requiring a corresponding acceleration in muscular activity. At all events, the 4% rise in oxygen consumption, even if caused by the increased mental activity, is insignificant since it amounts only to about 4 calories an hour or the energy supplied by the consumption of half a peanut. The author discusses the electrical properties of thought and the influence of the ductless glands, and predicts a time when "the chemist of the future will be one of the chief allies of the neurologist, and perhaps of the psychiatrist."—*R. A. Brotemarkle* (Pennsylvania).

5612. **Hasama, B. Über Potentialänderungen an der Nebenniere des Frosches bei Belichtung des Körpers.** (Potential changes in the suprarenal gland of the frog on illumination of the body.) *Pflüg. Arch. ges. Physiol.*, 1937, **238**, 758–766.—Periodic mono- or biphasic potentials are recorded from the suprarenals of the frog in the light. In the dark they are almost entirely absent. If the animal is brought from a dark to a light room, after a latent period a negative monophasic potential is recorded which soon decreases, although the illumination is continuous. These potential changes are due to the activity of the glandular cells in secreting adrenalin, which, in turn, is induced by migration of retinal pigment or by contraction of the skin melanophores. The same potential changes are effected by injection of nicotine into the animal and are accompanied by paling of the retinal pigment and skin melanophores.—*M. A. Rubin* (Worcester State Hospital).

5613. **Hoff, F. Über Änderungen der seelischen Stimmungslage bei Verschiebungen des Säure-basengleichgewichts.** (The changes in emotional condition accompanying alteration of the acid-base equilibrium.) *Münch. med. Wschr.*, 1935, No. 2, 1478.—*P. L. Krieger* (Leipzig/Munich).

5614. **Jongbloed, J. Über das psychische Verhalten während kurzen Aufenthalts auf 5000 m Höhe.** (Concerning the mental state during short stops at 5000 m height.) *Klin. Wschr.*, 1935, No. 2, 1564.—*P. L. Krieger* (Leipzig).

5615. **Kleitman, N., Mullin, F. J., Cooperman, N. R., & Titelbaum, S. Sleep characteristics.** Chicago: Univ. Chicago Press, 1937. Pp. 87. $1.00. —In this investigation of sleep 25 men and 11 women served as subjects for a total of 6200 nights. Motility records were taken with mechanical devices. Each subject filled out a daily report on 69 items, such as the amount and quality of sleep, activities during the day (including naps, food, and drink), health, and feelings of fatigue on retiring and arising. On some nights the subjects took certain foods or drugs. The data were treated with a Hollerith machine. The results showed great variability from subject to subject, and from night to night. Lowest motility and highest incidence of dreaming were found in the spring. Naps, weather, temperature, size of dinner, beverages taken with dinner, and evening activity had no significant effect on motility during sleep. 8 oz. of hot or cold milk or water had no effect except to increase dreaming. Evipal (0.26 gm) made it easier to go to sleep. Amytal (0.1 gm.) increased the duration of sleep. Ovaltine (14 gm.) decreased the recorded motility and increased the incidence of "well-rested" mornings. Poor health or deviation from daily routine had a deleterious effect on sleep.—*H. Schlosberg* (Brown).

5616. **Kleitman, N., Titelbaum, S., & Hoffman, H. The establishment of the diurnal temperature cycle.** *Amer. J. Physiol.*, 1937, **119**, 48–54.—The cycle of sleep and wakefulness previously found parallels the diurnal temperature curve and variations in steadiness and in muscular and mental performance. The diurnal sleep rhythm is not present at birth, but the temperature cycle is, to some degree. The present study shows that during the first year of life there is a gradual increase in the range and regularity of the diurnal temperature curve. During the second year the adult type of curve is established. The endogenous factor of nervous system development is apparently necessary to adaptation to night and day routine of life.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

5617. **Lange, F. Die Sprache des menschlichen Antlitzes. Eine wissenschaftliche Physiognomik und ihre praktische Verwertbarkeit im Leben und in der Kunst.** (The language of the human face. A scientific physiognomy and its practical utilization in life and in art.) München: Lehmann, 1937. Pp. 228. M. 9.40.—*P. L. Krieger* (Leipzig/Munich).

5618. **Măciucă, C. Contribution à la biologie de *Pyrrochoris apterus* Linn. Note préliminaire.** (Contribution to the biology of *P. apterus* L. Preliminary note.) *Notat. Biol., Bucuresti*, 1935, **3**, 11–15.—(*Biol. Abstr.* XI: 13664).

5619. **Main, R. J. Variations in alveolar carbon dioxide in man during hunger.** *Amer. J. Physiol.*, 1937, **119**, 7–12.—An attempt was made to use alveolar CO_2 as an index of gastric and pancreatic secretion. The Haldane-Priestley method was used on colleagues and students. The subject waited until breathing was normal and at the end of respiration forced air into a tube and then closed it with his tongue until the stopcock was turned. Thus better agreement was obtained with gas tension

of the blood. Variations in CO_2 were found especially at mealtimes (fasting) and a CO_2 drop was correlated with occurrence of hunger contractions. This was attributed to stimulation of respiration either by hunger contractions or by a humoral factor responsible for producing the hunger contractions.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

5620. **Maslow, A. H. The influence of familiarization on preference.** *J. exp. Psychol.*, 1937, **21**, 162–180.—The real purpose of this experiment, which was to investigate the extent and nature of the affective changes wrought by repetition of an activity or condition, was concealed from the subjects until the completion of the investigation. The results from 17 separate tests or choice experiments indicate in general that sheer repetition, leading to familiarity, causes a greater liking for the familiar thing or activity.—*H. W. Karn* (Pittsburgh).

5621. **Meythaler, F., & Wossidlo, K. Über den Adrenalingehalt des peripheren menschlichen Blutes bei sportlichen Leistungen.** (The adrenalin content of the peripheral human blood in athletic exertion.) *Klin. Wschr.*, 1937, **16**, 658–662.—In highly trained athletes maximal exhausting effort leads to insufficiency of the adrenal-sympathetic system, which results in secondary "peripheral" collapse. The safety function (Meythaler) passes into the necessity function (Cannon), both give out, and sport shock results. In the untrained person, on the other hand, the limit of effort is set by the musculature and heart.—*P. L. Krieger* (Leipzig).

5622. **Mowrer, O. H. The influence of vision during bodily rotation upon the duration of postrotational vestibular nystagmus.** *Acta Otolaryngol., Stockh.*, 1937, **25**, 350.—On the basis of previously reported observations on rabbits it seemed probable that in human beings postrotational nystagmus would be of shorter duration if vision was permitted than if the eyes were kept closed during the rotation; after the rotation the eyes were free in both cases. The expected findings were obtained in the experiments reported here, which were done on 10 university students. The explanation proposed is that if the eyes are left free during the rotation period the tendency toward the persistence of the resulting optokinetic nystagmus into the period following the stimulation hinders the postrotational vestibular nystagmus in the opposite direction. The author assumes that this cancellation effect takes place in the vestibular nuclei, which are shown to possess a mechanism acting after the discharge and clearly set off by both vestibular and optic impulses. The author also made various other attempts to influence postrotational nystagmus by varying the nature of the optical stimulation, but the results of these experiments were negative. He sets up certain hypotheses which might explain why the results were of this kind. Some general discussion is devoted to the question whether the vestibular receptors, which, like the neural mechanism, are localized in the vestibular nuclei, are likewise able to give rise to after-discharges.—*E. M. Pilpel* (New York City).

5623. **Nestor, I. M. Psihologia clipei de spaima.** (Psychology of the moment of fear.) Bucuresti: Societatea Romana de Filosofie, 1934. Pp. 72.—A psychological analysis of the moment of fear and dread occurring in industrial accidents. The analysis is based upon observation and tests. Tests regard intelligence, memory, association, attention, manual dexterity, motor irritability. All these functions seem to be much affected by the moments of fear and dread characteristic of accidents. The degree of fear influence is defined and its experience in consciousness analyzed. Voluntary acts are also affected. Marbe's notion of *Einstellung* and *Umstellung* is also considered. Among the main conclusions are: (1) dread seems to be a rather large alteration of the normal course of life producing an intense confusion, (2) it eliminates from consciousness all other preoccupations, and (3) it is accompanied by important physiological changes, (4) all psychological functions are much affected, (5) fear and dread consequences are sometimes very long and capable of determining neurotic states, (6) fear and dread can, however, be mastered by the mind, (7) this mastering depends upon the whole psychobiological constitution and especially upon temperament, (8) this constitution and the temperament have to be taken into consideration in vocational guidance as well as the reaction time.—*N. Margineanu* (Cluj, Rumania).

5624. **Ohm, P. Der optokinetische Nystagmus unter normalen Bedingungen.** (Optokinetic nystagmus under normal conditions.) Bottrop i. W.: Postberg, 1936. Pp. 26.—*R. R. Willoughby* (Brown).

5625. **Quinan, C. Can the brainedness factor right or left be established by graphic time data alone?** *J. exp. Psychol.*, 1937, **21**, 230–235.—"A kinetic method for the determination of the brainedness factor is described, the essential working element of which consists of a quantitative time value measured with reference to a constant unit of graphic work. The method depends upon the principles: (1) that any literate person can write with each hand in the direction either dextrad or sinistrad; (2) that the time values noted as regards any person's mirror-writings become progressively smaller from day to day; (3) that the two mirror-writing time values—left and right—obtained respectively from a dextral person and a sinistral person exhibit a remarkable phenomenon of isomorphism—right or left as the case may be. This phenomenon usually manifests itself clearly on or about the third day."—*H. W. Karn* (Pittsburgh).

5626. **Schlierbach, P. Gibt es eine Summation von Eigenreflexen?** (Is there a summation of inborn reflexes?) *Dtsch. Z. Nervenheilk.*, 1935, **138**, 250.—*P. L. Krieger* (Leipzig).

5627. **Seiffert, W. Die Bedeutung der experimentellen Erbbiologie für die Erforschung des Menschen.** (The significance of experiments in the

biology of heredity for the investigation of mankind.) *Z. Rassenk.*, 1937, **6**, 1–13.—*P. L. Krieger* (Leipzig).

5628. **Taics, I. Über gekreuzte Reflexe.** (Crossed reflexes.) Riga: Extra, 1937. Pp. 22.—*R. R. Willoughby* (Brown).

5629. **Van Harreveld, A. Electronarcosis with alternating current in fish.** *Arch. néerl. Physiol.*, 1937, **22**, 84–92.—The brain of a fish can be paralyzed by applying an alternating current of 50 cycles directly to it. When this is done the respiratory movements of the operculum diminish as the strength of the current is increased and the animal, when brought into water, does not swim but sinks on its side or back to the bottom of the tank and behaves like a spinal fish. This is thought to be a genuine narcosis. The symptoms are not caused by a tetanus of all of the muscles.—*C. P. Stone* (Stanford).

5630. **Voûte, P. A. [Research on twins.]** *Maandschr. Kindergeneesk.*, 1936, **5**, 202.—A description is given of the two methods by which monozygotic and dizygotic twins can be distinguished. In an investigation of a large series of cases of twin births in the obstetric clinics of Utrecht and Rotterdam it was statistically proved that about 30% of all monozygotic twins are born in two separate chorions. So by the obstetric method it is possible to diagnose only those monozygotic twins that are born in one chorion. Stress is laid on the great importance of this fact. Though limited in its use, the obstetric method should not be overlooked, because it is an objective one. This cannot be said of the second, the so-called polysymptomatic or resemblance method. As there is no proof of an obligatory likeness of monozygotic twins, it is to be understood that sometimes doubt as to the diagnosis will remain. This is demonstrated by two cases of monozygotic (single chorion) twins, one having a harelip and the other totally free from the anomaly, though harelip was hereditary in both families. These observations cast a strange light on the possibilities concealed in two of the same genotypes; an acceptable explanation of the divergency cannot be given. As to the research work on twins, it seems possible to follow two lines of investigation: (1) comparison of series of monozygotic and dizygotic twins, and (2) investigation of monozygotic twins which live in different environmental circumstances. These principal methods of research are discussed briefly and illustrated by examples.—(Courtesy *Child Develpm. Abstr.*)

5631. **Weiss, P. Further experimental investigations on the phenomenon of homologous response in transplanted amphibian limbs. IV. Reverse locomotion after the interchange of right and left limbs.** *J. comp. Neurol.*, 1937, **67**, 269–315.—In a number of urodele amphibians the left and the right forelimbs were interchanged by transplantation. Motility was regained within 3 to 4 weeks after the operations. Movements of the forelimbs were exactly the reverse of what appears in the normal animal, with the result that progression on land was impossible. When the hind legs tended to propel the body forward the reversed fore legs tended to propel it backward at the same time and with about the same force. The author believes that in this organism basic motor patterns owe their organization to intrinsic properties of the central nervous system rather than to peripheral influences and that the motor patterns are permanent, stable, and unmodifiable in their essential features; furthermore, that the higher associative functions are apparently confined in amphibians to facilitating and possibly recombining the definite motor patterns without being able to remodel the individual patterns. In these respects amphibians are said to differ from mammals.—*C. P. Stone* (Stanford).

5632. **Yanowitz, B. Klinische Untersuchungen über die Bauchdecken- und Cremasterreflexe.** (Clinical studies on the abdominal and cremasteric reflexes.) Zürich: Stampfenbach, 1937. Pp. 56.—*R. R. Willoughby* (Brown).

[See also abstracts 5394, 5410, 5436, 5443, 5444, 5446, 5460, 5462, 5474, 5480, 5512, 5518, 5532, 5552, 5570, 5640, 5694, 5732, 5772, 5780, 5781, 5844, 5854, 5870, 5912, 5923, 5958, 6018, 6020, 6026, 6035, 6053.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

5633. **Abe, M. Sinsô-sinrigaku.** (Depth psychology.) Tokyo: Tôen-Syobô, 1935. Pp. 186. Yen 2,00.—The author first reviews the theories of Freud, Jung and Adler, and then criticizes them.—*T. Chiba* (Sendai).

5634. **Bálint, M. A contribution to the psychology of menstruation.** *Psychoanal. Quart.*, 1937, **6**, 346–352.—Discussion is given of menstruation as a conversion symptom uniting in itself opposing wishes and instinctual impulses, which may be described as genital-sexual excitation and defense against this. Material from case histories is cited to illustrate the interplay of these ambivalent impulses.—*M. H. Erickson* (Eloise Hospital).

5635. **Beck, L. F. Hypnosis.** (Film.) Eugene: Univ. Oregon, 1937. 400 ft., 16 mm. $22.00 sale.—This silent film, which is entirely new, supplants a previous picture by the same title (see X: 1987). Phenomena demonstrated in the picture include induction of a profound trance, eye and arm catalepsy, anesthesia, anopsia, abnormal gustatory and thermal illusions, awakening from the trance, execution of two post-hypnotic suggestions, and resumption of the trance at a given signal. The film is adequately titled and edited.—*L. F. Beck* (Oregon).

5636. **Bergler, E. Further observation on the clinical picture of 'psychogenic oral aspermia.'** *Int. J. Psychoanal.*, 1937, **18**, 196–234.—The author continues his previous studies upon ejaculatory disturbances and reports in detail his analytic findings upon two males, aged 34 and 25, both of whom suffered from a condition in which ejaculation, possible under other circumstances, was totally

absent in coitus. Study disclosed this condition to arise from failure to surmount the "breast complex," causing an identification with the phallic mother and the placing of the woman in the role of a nursing infant, thus transforming coitus into an active repetition of a passive experience. Discussion of associated symptomatology, particularly the oral, is given in the light of the anamnestic material obtained during the analyses, and extensive references are made to the clinical findings in a total of six such cases of the author, five of whom made good recovery. Suggestions are made for further study of this type of manifestation.—*M. H. Erickson* (Eloise Hospital).

5637. **Bischler, W. Intelligence and the higher mental functions.** *Psychoanal. Quart.*, 1937, **6**, 277–307.—An endeavor is made to apply the concepts of psychoanalysis to intelligence and the higher mental functions. Intelligence, consciousness, intuition, perception, reasoning, logical comprehension, social aspects of language, understanding, invention, judgment, and interpretation are considered, and an analysis is made of the various mental processes and psychic dynamisms and the instinctual forces and fundamental impulses entering into each of these.—*M. H. Erickson* (Eloise Hospital).

5638. **Bond, E. M. General extra-sensory perception with a group of fourth and fifth grade retarded children.** *J. Parapsychol.*, 1937, **1**, 114–122.—A class of retarded children guessed numbers upon which the teacher concentrated. The number of correct responses from the group was significantly above the chance expectation. 4 of the 22 children made individually significant scores. Extra-chance scoring did not occur on days following an absence from school, or when the subjects used rational schemes to guide their choices. No reliable correlation between scoring ability and intelligence rating was found.—*C. E. Stuart* (Duke).

5639. **Bose, G. The duration of coitus.** *Int. J. Psychoanal.*, 1937, **18**, 235–255.—Discussion is given of the general problem of the normal duration of coitus, with a brief mention of the criteria of the sex act offered by Rickman and by Reich. The author considers that the normal duration of coition is 1½ to 5 minutes, that the occurrence of more than one orgasm during a single intercourse is pathological for the female, and that "long duration extending from 10 minutes to an hour or more is often noticed in persons who are obviously abnormal, viz., psychoneurotics, psychotics, castrated individuals and persons with weak libido." Several clinical case histories are cited and much reference is made to the writings of Batsayana of about 310 B.C.—*M. H. Erickson* (Eloise Hospital).

5640. **Brierley, M. Affects in theory and practice** *Int. J. Psychoanal.*, 1937, **18**, 256–268.—Originally affect played a leading role in the theory and practice of psychoanalysis, but with the formulation of the libido theory and the conception of conflict as arising between ego and sexual instincts, emphasis was placed upon instinct in the field of theory, with a consequent decrease of attention to affect as such. However, in practice affect has continued in its importance, and in problems of technique, diagnosis and prognosis its significance is readily recognized. Discussion is offered of some of the cardinal problems of affect, such as the interrelationships of affect and instinct, the sources of affect, the conception of affect as tension-phenomena, the interplay of external and internal reality in affect development, the role of affect in ego and super-ego organization, and the significance of affects as highly differentiated end-products of various complex psychic processes of development. A 27-item bibliography is appended. —*M. H. Erickson* (Eloise Hospital).

5641. **Burlingham, D. Probleme des psychoanalytischen Erziehers.** (Problems of the psychoanalytic teacher.) *Z. psychoanal. Pädag.*, 1937, **11**, 91–97.—Psychoanalytic training develops many new insights in a teacher, but it also creates problems of orientation in this growing field. Some teachers have become frightened by their analytic experience and confine themselves to making life as pleasant as possible for the child, because they fear to take the responsibility for additional conflicts. A second group believes that the child's problems are solved when they analyze his difficulties and tell him the result. Still another group seeks an explanation of the child's problems in his relations to his parents. In addition to the difficulty of personal orientation, the teacher also faces the problem of differential treatment of children from homes which are and those which are not psychoanalytically oriented, and of recognizing neuroses which must be treated by individual analysis.—*H. Beaumont* (Kentucky).

5642. **Carrington, H. The psychic world.** New York: Putnam, 1937. Pp. 327. $2.75.—A history of psychic phenomena, with an account of native practices throughout the world. The author is the director of the American Psychical Institute.—*R. R. Willoughby* (Brown).

5643. **Copeland, C. L., & Kitching, E. H. Hypnosis in mental hospital practice.** *J. ment. Sci.*, 1937, **83**, 216–329.—A brief discussion of 20 case studies indicates that hypnosis is an effective instrument for the psychiatrist; in certain cases it permits correction of diagnoses; in many others it shortens the labor of mental exploration. When used by qualified persons there is practically no danger of harmful after-effects.—*C. J. Herrick* (Pennsylvania).

5644. **Du Bois, C. Some anthropological perspectives on psychoanalysis.** *Psychoanal. Rev.*, 1937, **24**, 246–263.—With less stress upon the evolutionary and more on the cultural side of anthropology, there has been a tendency to form a rapprochement between anthropology and psychoanalysis. In part this is fallacious. The first fallacy is the attempt to translate anthropological meanings into psychoanalytic terminology. A second fallacy is the failure to realize the cultural implications of history in the sense of dynamics. Anthropology has failed to recognize that individual interpretation is necessary for cultural patterns. The writer has an

hypothesis involving a comparative approach to the psychic unity of mankind, and presents evidence of its existence and a theory concerning its major components. She raises eight queries to bring out the relationship between the two disciplines.—*L. S. Selling* (Recorder's Court, Detroit).

5645. **Freud, A. The ego and the mechanisms of defence.** London: Hogarth, 1937. International Psycho-Analytical Library, No. 30. 9s.—(See XI: 1769.)—*R. R. Willoughby* (Brown).

5646. **Freud, S. Contribution à la psychologie de la vie amoureuse.** (Contribution to the psychology of the love life.) (Trans. by M. Bonaparte & A. Berman.) *Rev. franç. Psychanal.*, 1936, **9**, 2–21.—This essay was published in 1910 in *Rev. des recherches psychanal. et psychopathol.*, vol. 2.—*F. G. Allen* (Brown).

5647. **Freud, S. Métapsychologie.** (Metapsychology.) (Trans. by M. Bonaparte & A. Berman.) *Rev. franç. Psychanal.*, 1936, **9**, 22–116.—This essay was published in 1910 in *Rev. des recherches psychanal. et psychopathol.*, vol. 2.—*F. G. Allen* (Brown).

5648. **Fries, M. E. Play technique in the analysis of young children.** *Psychoanal. Rev.*, 1937, **24**, 233–245.—The writer illustrates the technique of child analysis by one incomplete case history, done under the supervision of Anna Freud; some differences between Anna Freud's technique and that of Melanie Klein are indicated. The case shows how complex material is revealed during play, and the significance of playthings in the analysis. There was a change in the child's character after a month's analysis, due probably to the deep interpretation of unconscious material.—*L. S. Selling* (Recorder's Court, Detroit).

5649. **Fuchs, S. H. On introjection.** *Int. J. Psycho-Anal.*, 1937, **18**, 269–293.—Projection, introjection and identification are three mental mechanisms so intimately interwoven that the isolation of any one is not possible. A review is given of the main features in the concept of identification, followed by a review of the classic work on introjection. The author then takes up the consideration of the dynamic, topographic and economic aspects of introjection, reviewing the literature and correlating the various significant studies, and making a differential analysis of these three mechanisms. In an appendix of supplementary notes a schematic diagram is given of the ontogenesis of mental development together with a list of proposed definitions and a summary of the proposed alterations in their application and the use of immediately related terms. A 51-item bibliography is given.—*M. H. Erickson* (Eloise Hospital).

5650. **Glover, E. Unconscious functions of education.** *Int. J. Psychoanal.*, 1937, **18**, 190–195.—Education may be considered a form of open inhibition, with the "don'ts" as emphatic as the "do's," yet there has been little recognition of education as an unconscious mechanism serving a purpose of unconscious instinct inhibition. Usually education is considered to be purely environmental, and the possibility of its exploitation by unconscious mechanisms has been overlooked. Actually education from without may act as a displacement or projection of self-education and thus function as a screen for it. Of great significance is the effectiveness with which conscious education of one instinct serves to develop unconscious control of another, most clearly illustrated by the sublimation of the sexual impulse enabled by various educational procedures actually directed to other purposes. Likewise there are certain ego aspects of education, particularly in relation to the processes of identification which promote education. Finally there are super-ego aspects, which revolve about the still unsettled problem of endopsychic versus environmental factors in super-ego formation. The author concludes that a better educational perspective will obtain if it is kept in mind that education is in itself one of a series of unconscious mental mechanisms.—*M. H. Erickson* (Eloise Hospital).

5651. **Glover, E., Fenichel, O., Strachey, J., Bergler, E., Nunberg, H., & Bibring, E. Symposium on the theory of the therapeutic results of psychoanalysis.** *Int. J. Psycho-Anal.*, 1937, **18**, 125–189.—Glover discusses the various specific factors in the analytic process, listing the main therapeutic approaches as analysis of mental mechanisms, analysis of affect, and analysis of instinct quantities. Fenichel defines the therapeutic approach as either the strengthening of the ego in its defenses against the instincts, or the inducing of the ego to desist from or to modify its defenses, and discusses the means of so influencing the ego and the problem of the dynamic and economic explanation of the changes effected. Strachey, discussing the character of the therapeutic results and the manner of their achievement, concludes that the immediate determinants are to be found in the procedures of interpretation, and that their explanation rests upon introjection and projection. Bergler considers the problem of freeing the ego from anxiety. Nunberg defines and discusses analytic therapy as the process of bringing into consciousness that which previously had been unconscious. Bibring, considering the conditions favoring analytic cures, discusses id, super-ego and ego changes and modifications essential for therapy.—*M. H. Erickson* (Eloise Hospital).

5652. **Houwink, E. And after psychoanalysis.** *Soc. Work Technique*, 1937, **2**, 202–207.—Although Freud, Adler, Jung, and Rank have been scientific in their purpose they have been metaphysical in their method, because they have tended to see personality as an entity without causal relationship to its conditioning environments. The time has now come to make a transition to a full scientific methodology in personality analysis and therapy. Behaviorism has attempted to understand the intricacies of personality and to work out a treatment technique based on this understanding. From the viewpoint of behaviorism, personality is the conditioned result of the infinite number of experiences that come with living in environments which become more complex as man makes them so. Both individual and environ-

ment are studied, because a realistic view of behavior makes this inevitable. Social workers should examine and understand this point of view, which offers a more comprehensive explanation of human motivation and its meaning than the mysticism of psychoanalysis.—*M. Keller* (Brown).

5653. **Jenness, A., & Dahms, H. Change of auditory threshold during reverie as related to hypnotizability.** *J. gen. Psychol.*, 1937, **17**, 167–170.—"Morgan has stated that he has never been able to hypnotize a subject whose auditory threshold rose during reverie. Our data on eight hypnotizable subjects indicate that six of their auditory thresholds rose during reverie, which contradicts Morgan's hypothesis. We believe the rises in threshold were due to the acceptance of the suggestion to relax and daydream, which according to Morgan should lower the threshold."—*H. Schlosberg* (Brown).

5654. **Kaufman, M. R. Psychoanalysis in late-life depressions.** *Psychoanal. Quart.*, 1937, **6**, 308–335.—The difficulties inherent in the psychoanalysis of the psychoses and in the analysis of persons of advanced ages, and the unfavorable findings in these regards by earlier analysts, are briefly discussed. There follows brief mention of the more recent favorable findings, particularly in relation to manic-depressive psychoses and to analysis after the climacterium. Two cases, one in the fifth and the other in the sixth decade, both clinically classifiable in the manic-depressive group, are reported in detail with an account of the analytic findings and the favorable therapeutic results. Discussion is given of the dynamics involved in each case and the extent to which analysis could be utilized, and emphasis is placed upon the difficult problem of securing a significant transference relationship. A 16-item bibliography is appended.—*M. H. Erickson* (Eloise Hospital).

5655. **Kellogg, C. E. New evidence (?) for "extra-sensory perception."** *Sci. Mon., N. Y.*, 1937, **45**, 331–341.—A critique of J. B. Rhine's studies. It is shown regarding clairvoyance: (1) that Rhine greatly underestimates the chances for high scores; (2) that he pays no attention to the internal inconsistency of the results; (3) that he draws conclusions from selected portions of the evidence, in a way that assumes the truth of the theory he wishes to prove; (4) that among the selected series those giving the highest scores also offer the greatest opportunity for sensory clues to the identity of the cards. Regarding telepathy, the chances in this part of the research are unknown, so that the supposed evidence cannot be used.—*O. P. Lester* (Buffalo).

5656. **Lemmon, V. W. Extra-sensory perception.** *J. Psychol.*, 1937, **4**, 227–238.—"Various statistical criticisms of Rhine's data are examined. By comparison with the constants of an extensive empirical chance series, it is concluded that Rhine's statistical claims are substantially correct, and that his data show evidence of the operation of factors other than chance." Rhine's experimental conditions and techniques are considered less rigid than those used in physical sciences, and his failure to convince more psychologists is due more to this fact than to any error in statistics. Changes in technique are suggested. Even if extra-sensory perception should be satisfactorily established, radiation, in the light of recent physical theories, would make resort to mystical concepts unnecessary.—*J. McV. Hunt* (Brown).

5657. **Levy-Suhl, M. Resolution by psychoanalysis of motor disturbances in an adolescent.** *Psychoanal. Quart.*, 1937, **6**, 336–345.—A brief case history of a youth of 16 is given to show the resolution by psychoanalysis of motor disturbances, present since the age of 3 and attributed to an organic brain lesion, complicated by a severe neurosis. Emphasis is placed in the discussion upon the "demonstration of the relationship between an infantile repression of masturbation and the development of motor disturbances (muscular erotism), and to a variant of the four forms of the unconscious representation of the body as a phallus described by Bertram D. Lewin." Illustrative examples of the patient's productions are cited to demonstrate the play of instincts and an unusual wealth of symbolism.—*M. H. Erickson* (Eloise Hospital).

5658. **MacFarland, J. D., & George, R. W. Extra-sensory perception of normal and distorted symbols.** *J. Parapsychol.*, 1937, **1**, 93–101.—13 student subjects were given 20,450 trials in matching tests for extra-sensory perception. They averaged 7.1 hits per 25 calls. Half the trials were made with standard ESP cards, the others with the ESP symbols grossly distorted. The only subject showing a reliable difference in scoring level was one of the experimenters. An empirical check of the chance hypothesis gave an average of 4.95 hits per 25.—*C. E. Stuart* (Duke).

5659. **Menninger, K. A. Impotence and frigidity.** *Bull. Menninger Clin.*, 1937, **1**, 251–260.—The various types of impotence and frigidity are shown in their interrelationships. A psychoanalytic etiological theory on the basis of fear of punishment, aggressive urges and conflicting libidinal attachments is developed. Psychoanalysis is suggested as the rational therapy.—*J. F. Brown* (Kansas).

5660. **Meyerson, I. Remarques pour une théorie du rêve. Observations sur le cauchemar.** (Remarks for a theory of dreams. Observations on the nightmare.) *J. Psychol. norm. path.*, 1937, **34**, 135–152.—After presenting and discussing several nightmares, the author gives a résumé of traits they have in common: (1) There is a feeling of the infinity of the universe and of the limitations of individual existence, a feeling of being weak and isolated; all of this accompanied by intense anguish. (2) One feels that in order no longer to suffer, one must no longer be oneself, one must erase the boundary between self and universe. (3) The objective material content of the nightmare is not an adequate cause of the terrific fright felt. (4) Often the same nightmare is repeated immediately or after long or short

intervals, all of which tends to increase the feeling of horror. (5) Occasionally the nightmare continues after awakening. (6) There is sometimes a splitting of the self, which may continue even after awakening. The author also makes the following more general suggestions: (1) The so-called symbolic activity of dreams is not unique for dreams; it strikes us more than that of waking thought because the symbols are more inadequate. (2) The dramatic and lyrical aspects of dreams are not due to special material but to a difference in emphasis. (3) During dreams there is the same total psychic complex as in the waking state; the nature of the unity of the self is not different. (4) All these considerations tend to reconcile dreams with the waking state; they confirm a theory of the unity of mental life.—*R. E. Perl* (New York City).

5661. **Price, M. M., & Pegram, M. H. Extra-sensory perception among the blind.** *J. Parapsychol.*, 1937, 1, 143–155.—In a study of extra-sensory perception in the blind, 66 subjects ranging in age from 8 to 35 years were given various card-calling tests. The total average above chance for all subjects was highly significant. 44% of the subjects gave individually significant scores. No reliable correlation was noted between ESP scoring ability and age, extent of blindness, or age at which the subject became blind. Some of the significant subjects were totally blind.—*C. E. Stuart* (Duke).

5662. **Rhine, J. B. New frontiers of the mind.** New York: Farrar & Rinehart, 1937. Pp. 275. $2.50.—The author presents the complete story of the Duke experiments concerning extra-sensory perception. He gives the background of these experiments, an account of the preliminary work on extra-sensory perception, the numerous tests used in checking this original work, and a discussion of the criticism the work has met. The experiments were undertaken "with the express purpose of cornering the problem of whether anything enters the mind by a route other than the recognized senses." The large majority of the tests performed to repeat the original ESP work confirmed the findings and demonstrated that the senses are not the only channels of cognition. No predictions as to what this research may lead to are given; the author advises anyone concerned "to stick to the tests and let applications and interpretations wait."—*E. D. Hunt* (Brown).

5663. **Rhine, L. E. Some stimulus variations in extra-sensory perception with child subjects.** *J. Parapsychol.*, 1937, 1, 102–113.—17 children were used as subjects in two matching tests. In the first test cards bearing large symbols were shuffled in with cards bearing small symbols. In the second test cards with five symbols were shuffled in with cards bearing only one. No significant discrimination was found in either case, although the total scores were high enough to be indicative of an extra-chance factor. Some suggestions are given for the technique of using child subjects.—*C. E. Stuart* (Duke).

5664. **Rosenzweig, S. The experimental study of psychoanalytic concepts.** *Character & Pers.*, 1937, 6, 61–70.—The historical background of psychoanalysis, the problem of its *rapprochement* with experimental psychology, and the programs advocated recently for this purpose are discussed. If these programs are pushed forward and the essential principles of psychoanalysis are well examined, this science should presently be able to overcome the strong prejudice against it, emerge from the retreat into which it was forced by this prejudice, and flow into its predestined psychological and medical channels. Through experimental and practical verification it will lose it cultist and isolative character and become an integral part of scientifically established knowledge. 34 references are cited.—*M. O. Wilson* (Oklahoma).

5665. **Schilder, P. The psychotherapeutic approach to medicine.** *Psychoanal. Rev.*, 1937, 24, 264–275.—Because there is organic disease there is no need to ignore the psychological side. This should be investigated in a special way. There is a classification of symptoms which have a psychological connotation: (1) symptoms of the surface of the body; (2) symptoms of the openings of the body; (3) symptoms of the senses; (4) symptoms of the inside of the body; (5) general symptoms. These groups are broken down into individual symptoms which are discussed in detail. Two cases are cited to show the value of psychological treatment even where there is organic disease.—*L. S. Selling* (Recorder's Court, Detroit).

5666. **Sharp, V., & Clark, C. C. Group tests for extra-sensory perception.** *J. Parapsychol.*, 1937, 1, 123–142.—ESP card tests were given (1) to college classes, (2) to groups voluntarily coming into the laboratory, and (3) to individuals from those groups. Of 69 subjects tested, 10 ultimately indicated individual ability in extra-sensory perception. The individual tests gave higher scores than the group tests. Variation in group scoring coincided with changes in the experimenter's attitude. Individual scoring showed changes with different experimenters. —*C. E. Stuart* (Duke).

5667. **Shaskan, D. Response of students to a demonstration of hypnotism.** *J. gen. Psychol.*, 1937, 17, 174–178.—After a demonstration of hypnosis, 64 members of a class of medical students were questioned about their reaction to it. 62 enjoyed the demonstration. Most of them felt placed in a superior position by watching the hypnosis, and envied the hypnotist. These results throw light on the mechanism of hypnosis.—*H. Schlosberg* (Brown).

5668. **Speyer, N., & Stokvis, B. Über die subjectiven Phänomene in der Hypnose.** (Subjective phenomena in hypnosis.) Apeldoorn, Netherlands: Apeldoornsche Bosch, 1937. Pp. 37.—*R. R. Willoughby* (Brown).

5669. **Steiner, M. The dream-symbolism of the analytical situation.** *Int. J. Psychoanal.*, 1937, 18, 294–305.—Discussion is given of the part played in psychoanalytic practice by the various types of

dreams which occur at different stages of the analysis. The author considers these dreams as characterized by the types of resistance being made to the analytic attack, and he classifies them in accordance with their general motif, citing illustrative examples from his clinical practice for each general type.—*M. H. Erickson* (Eloise Hospital).

5670. **Steinhart, P. Der Schlaf des Pferdes. Seine Dauer, Tiefe, Bedingungen.** (The sleep of the horse; its duration, depth, and conditions.) *Z. Veterinärk.*, 1937, **49**, Nos. 5, 6. Pp. 56.—*R. R. Willoughby* (Brown).

5671. **Warner, L. The role of luck in ESP data.** *J. Parapsychol.*, 1937, **1**, 84–92.—With a technique designed to rule out extra-sensory perception "runs of luck" in data comparable to that of ESP tests were studied. The results were close to expectation upon a chance hypothesis.—*C. E. Stuart* (Duke).

5672. **Willoughby, R. R. Further card-guessing experiments.** *J. gen. Psychol.*, 1937, **17**, 3–13.—The paper reports further attempts to check Rhine's clairvoyance hypothesis. Each of 8 subjects was given 200 successive runs through a shuffled pack of 25 cards. The guesses were made and tabulated with the pack untouched, and were then compared with the actual cards, and with the "hits" made by a control pack. The subjects were no more successful than would be predicted by chance, and named the correct card about as frequently as did the cards picked from the control pack. The possible effect of preference for certain cards is discussed. The writer concludes that if a number of specific standards (shuffling, statistical, and control of conditions) are maintained, "We are convinced that the results, like ours, will be explicable by the hypothesis of chance alone."—*H. Schlosberg* (Brown).

[See also abstracts 5384, 5464, 5568, 5678, 5709, 5738, 5739, 5744, 5747, 5759, 5831, 5907, 5908, 5910, 5932, 6003, 6037, 6038.]

FUNCTIONAL DISORDERS

5673. **Aalborg, H., Schou, H. I., & Riising, J. Pladsmangel paa statens sindssygehospitaler.** (Lack of space in the state hospitals for mental diseases.) *Ugeskr. Laeger*, 1937, **99**, 950–958; 984–991.—An investigation in 1932 showed that there was a real need of space for 1500 more mentally diseased persons in Denmark, and at the present time 800 are still without proper placement. These deplorable conditions prompted Danish physicians to put this matter up for a general discussion at the annual meeting of the National Association, and also to invite all interested state authorities such as the Minister of the Interior, the State Medical Director, etc. The article contains the full discussion, including three introductory lectures, one by Aalborg from the point of view of general community hospitals, one by Schou as regards psychiatrists in mental hospitals, and one by Riising representing the general practicing physicians. There is also a general survey of the situation by the Minister of the Interior.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5674. **[Anon.] The Institute of Neuropsychiatry of the University of Michigan.** *Science*, 1937, **86**, 279–280.—*F. A. Mote, Jr.* (Brown).

5675. **Arnesen, H. Dementia praecox i Gaustad asyl 1915–1929.** (Dementia praecox in Gaustad Asylum, 1915–1929.) *Tidskr. norske Laegeforen.*, 1937, **57**, 569–578.—The writer gives data supplementary to the lecture by H. Evensen delivered at the annual meeting of Scandinavian psychiatrists in Stockholm, 1935 (see XI: 5110) about the 815 patients discharged from the Gaustad Hospital for Mental Diseases 1915–1929, with special reference to conditions of the 20% who regained their health after discharge. Questions such as inheritance, sexual, emotional, intellectual conditions, exogenous and endogenous causes, duration of illness before discharge, etc., are discussed in the light of the statistical data. The main conclusions are: Strong hereditary trend in the family, sexual aberrations, damage from the sun, operations, and economic and social conditions seem to be of no importance for the prognosis. Psychogenous origin of the illness seems to give a good prognosis, illness of long duration does not offer an absolutely unfavorable prognosis, alcoholism or intemperance suggests an unfavorable prognosis.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5676. **Baker, H. J. Mental hygiene and adjustment: physically and mentally exceptional children.** *Rev. educ. Res.*, 1936, **6**, 514–523.—A review of literature to Jan. 1, 1936, in which such handicaps as poor health and low vitality, visual defects, auditory defects, orthopedic defects, cardiac disorders, epileptic disorders, endocrine phenomena, manual and motor development, handedness, nervous and encephalitic difficulties, and speech disorders have been seen to be of concern for mental health. Problems encountered in dealing with children of varying levels of intellectual ability are considered in the light of research findings which have been reported.—*D. Bailey* (Mt. Holyoke).

5677. **Baur, H. Beiträge zur Genese der weiblichen Homosexualität.** (Contributions on the genesis of feminine homosexuality.) Mulhouse: Knecht, 1937. Pp. 32.—*R. R. Willoughby* (Brown).

5678. **Bergler, E. The present situation in the genetic investigation of homosexuality.** *Marriage Hyg.*, 1937, **4**, 16–29.—Everything seems to point to a psychical genesis of homosexuality, though it is not contested that this condition has a biological sub-structure. Freud described the psychical genesis of the perversion in three types of homosexuals, and additional types are reported in the recent literature. Besides the psychological fate of the biological urges described, two constitutional factors can also be held responsible for the origin of inversion, namely, oral regression and a narcissistic type of libido. Homosexuality can be cured by psychoanalytic treatment if the individual realizes that he is ill and suffers psychically as a result of his illness. "It is

antiquated and senseless to threaten adult homosexuals with imprisonment, since we are dealing here with an illess, in which constitutional and psychological factors play a joint part. The attempt to force the homosexual into marriage in order to 'cure' him thereby would be committing a crime upon the woman, and is a useless method."—*M. Keller* (Brown).

5679. **Betzendahl, W. Sprachliche Produktionen und Körperschema bei involutiven Geistesstörungen.** (Linguistic production and body schema in involutional mental disorders.) *Mschr. Psychiat. Neurol.*, 1935, **91**, 213.—*P. L. Krieger* (Leipzig).

5680. **Betzendahl, W. Über Raum und Zeit bei der Strukturanalyse der Psychosen.** (Space and time in the structural analysis of the psychoses.) *Mschr. Psychiat. Neurol.*, 1937, **95**, 1–25.—Time and space are the basis of the psychotic patient's experience of his own personality or at least of the environment, in a more fundamental form than is usually considered, especially in the physical theories. In the psychopathic states the forms of their perception remain abstract, although with an affective tone. In the exogenous reactions the grasp of time and space is essentially changed qualitatively. In manic-depressive conditions the categories of past, present and future become decisive for ego-feeling. In schizophrenia space becomes the medium of the ego-picture. Cerebral atrophy causes tension between the symbolic functions and the perceptive schemata. Principally, the physiological life-period in itself determines the development of orientation of space to time, even to the return of the present experience to reproductive rigidity in its former contiguity.—*P. L. Krieger* (Leipzig).

5681. **Blixenkrone-Møller, N. Papillarmuster und Imbezillität.** (Papillary patterns and imbecility.) *Mschr. Psychiat. Neurol.*, 1937, **95**, 28–31.—The finger prints of 282 adult male imbeciles in Denmark were compared with those of 2000 Danish policemen. Contrary to the results of German studies, no variations from the normal were found. The author is in doubt whether the cause of this difference between Danes and Germans is that the Danish endogenous imbeciles and idiots belong to a different constitutional type from the German or whether the difficulty lies in making a collection of pure endogenous imbeciles.—*P. L. Krieger* (Munich).

5682. **Brander, T. Über den Zusammenhang zwischen Rachitis und Unterbegabung.** (Association between rickets and mental backwardness.) *Mschr. Kinderheilk.*, 1937, **69**, 47–56.—In a study of 375 cases of prematurely born children, most of whom were between seven and fifteen years of age at the time of study, it was found that the lower the grade of intelligence the more frequent and pronounced were indications of early rickets. The social status of the group is not reported.—*F. L. Goodenough* (Minnesota).

5683. **Brander, T. Über den Zusammenhang zwischen vergrösserten Tonsillen und Unterbegabung.** (Association between enlarged tonsils and mental backwardness.) *Mschr. Kinderheilk.*, 1937, **69**, 57–67.—A marked relationship between degree of tonsil enlargement and mental backwardness is reported for 373 cases of prematurely born children studied between the ages of seven and fifteen years.—*F. L. Goodenough* (Minnesota).

5684. **Cahane, M. Asupra tratamentului anoreziei mintale.** (On the treatment of mental anorexia.) *Bul. Soc. Psihol. med.*, 1937, **3**, 41–44.—A good diagnosis and treatment of mental anorexia requires psychology and psychoanalysis. The analysis of some cases make this necessity quite clear. Medical treatment should be combined with psychological and psychoanalytical treatment.—*N. Margineanu* (Cluj, Rumania).

5685. **Cahane, M., & Cahane, T. Cercetari asupra reflexelor conditionale in unele psichose.** (A research concerning conditioned reflexes in certain psychoses.) *Bul. Soc. Psihol. med.*, 1936, 2, 30–34.—The role played by conditioned reflexes in certain psychoses is very large, and has already been demonstrated. Conditioned reflexes, however, play a role not only in the genesis of psychoses but also in their treatment. Such cases are especially studied by the authors. Injections designed to increase the number of leucocytes were made regularly for many days, with explanations to the patients. When only distilled water is then injected, the number of leucocytes still increases.—*N. Margineanu* (Cluj, Rumania).

5686. **Chang, I. N. [An introduction to mental hygiene.]** Shanghai: Commercial Press, 1936. Pp. 241. $1.80 mex.—This volume may be used as a college textbook or as a reference book for normal schools and families. Part I deals with the fundamental principles of mental hygiene as well as with some major forces causing breakdowns of personality. It consists of 7 chapters and covers such topics as the meaning and importance of mental hygiene; the rise and growth of the mental hygiene movement; standards of mental health; the healthful personality; forces that cause breakdowns of personality—fears, failures, and mental conflicts. Part II deals with applications of mental hygiene. It consists of 5 chapters and discusses mental hygiene as applied to medicine, parents, education, law, and industry. An appendix reports the founding of the Chinese Association of Mental Hygiene and its regulations. —*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5687. **Coerper, C. Die sozialbiologische Diagnose. Über die Verbindung körperlicher und geistiger Erbkrankheiten innerhalb der Sippe.** (Social-biological diagnosis; the linkage of physical and mental hereditary diseases within a stock.) *Veröff. Volksgesundheitsdienst.*, 1937, **49**, No. 3. Pp. 96.—*R. R. Willoughby* (Brown).

5688. **Döllken, —. Amusie und Stirnwindung.** (Amusia and facial movement.) *Z. Neurol.*, 1935, **153**, 573.—*P. L. Krieger* (Leipzig).

5689. **English, O. S., & Pearson, G. H. J. Common neuroses of children and adults.** New York: Norton, 1937. Pp. 320. $3.50.—This textbook, intended primarily for medical students and general practitioners, covers the more common neuroses of children and adults and deals with the application of psychoanalytic concepts to these disorders. Part I, Psychophysiology and Psychopathology of the Neuroses, devotes four chapters to the structure of the personality, psychosexual development, emotional traumata interfering with normal development, and the psychodynamics of symptom formation. Part II, The Common Neuroses of Childhood, containing nine chapters, treats of anxiety states, disorders of the functions of gastro-intestinal, urinary and motor systems, disturbances of social adaptation, inhibitions of social behavior, and sexual perversions, with a final chapter on general considerations of the treatment of psychogenic disorders in children. Part III, The Common Neuroses of Adults, devoted nine chapters to the problems of precipitating factors, neurasthenia, conversion and anxiety hysteria, compulsion neuroses, the neurotic character, and sexual perversions, general psychotherapeutic considerations, and special aspects of psychotherapy. A final chapter discusses the problem of adequate preparation for psychiatric work. Special chapter bibliographies and index are given.—*M. H. Erickson* (Eloise Hospital).

5690. **Forstmeyer, W. M., & Palisa, C. Zur Wiederkehr frühinfantiler Einstellung bei zerebralem Abbau.** (Return of early infantile attitudes in dementia.) *Mschr. Psychiat. Neurol.*, 1937, **95**, 32–35.—A report of a paralytic who showed sucking and smelling reflexes with pleasurable affect. The latter reflex was called forth by the presentation, most often visual, occasionally tactile, of all sorts of objects. This behavior is similar to that of a 12–18-months-old child, who carries to the nose all objects offered him. The reflex is more easily evoked immediately after awakening and disappears after affective excitement. Apparently there is an opposing relationship between sleep and affect, in that sleep, especially in demented patients, favors regression to a lower psychic level, while affect aids activation of higher mental capacities.—*P. L. Krieger* (Munich).

5691. **Frankl, G. Über postenzephalitischen Parkinsonismus und verwandte Störungen im Kindesalter.** (Postencephalitic Parkinsonianism and related disturbances in childhood.) *Z. Kinderforsch.*, 1937, **46**, 199–249.—Many cases of encephalitis lethargica are not recognized as such at the time of their occurrence but come to the attention of clinicians later because of the extreme disturbances of behavior they exhibit. The Parkinsonian syndrome with its characteristic features of rigor, tremor, retardation of movement, monotonous speech, mask-like facial expression, etc., or the correlative symptoms of uncontrolled activity, emotional unresponsiveness, inability to profit by experience or to be deterred by punishment are often the only available means of diagnosis. Medical treatment is rarely effective, but it is of the highest importance that the condition be recognized, since otherwise the child is likely to be treated as a delinquent and potential criminal when the real cause of his behavior lies in the damage to the extrapyramidal tract, which cannot be repaired. Pedagogical and social implications are discussed.—*F. L. Goodenough* (Minnesota).

5692. **Gottschick, J. Rassenhygienische und kulturbiologische Gesichtspunkte für die Abgrenzung des Schwachsinns.** (Racial-hygienic and cultural-biological points of view for the delimitation of feeble-mindedness.) *Med. Welt*, 1935, No. 40, n.p.—*P. L. Krieger* (Leipzig).

5693. **Gottschick, J. Bemerkungen zur Problematik der symptomatischen Psychosen.** (Observations on the problem of the symptomatic psychoses.) *Mschr. Psychiat. Neurol.*, 1935, **91**, 72.—*P. L. Krieger* (Leipzig).

5694. **Grassl, E. Die Willensschwäche.** (Abulia.) *Beih. Z. angew. Psychol.*, 1937, No. 77. Pp. 247.—This comprehensive treatment of abulia grew out of years of practical experience with children, youths and adults. It treats, among other topics, of the genesis and development of abulia, its extent (specific or general, ideational or motor, etc.), and its duration and manner of treatment.—*G. F. J. Lehner* (Brown).

5695. **Halliday, J. L. Psychologic factors in rheumatism: preliminary study.** *Brit. med. J.*, 1937, 213–217; 264–310.—*R. R. Willoughby* (Brown).

5696. **Hansen, S. Om sindssygdommenes arvelighed.** (Concerning the inheritance of mental diseases.) *Hospitalstidende*, 1937, **80**, 981–986.—It may be concluded that the typical manic-depressive psychoses and the schizophrenias are not inherited as simple dominant or recessive characteristics. Both categories of disease are so frequent in the general population that their appearance in one family may be purely accidental. A genealogical chart of Danish royalty and cases from the writer's experience are discussed, with reference also to the works of Hj. Helweg.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5697. **Hegge, T. G., The significance of special reading disability in mentally handicapped children.** *Amer. J. Psychiat.*, 1937, **94**, 77–87.—Special reading disability in particular must be differentiated in the high-grade defective and mentally handicapped children from the condition of general mental and educational deficiency and seized upon as a probably useful approach in preventing social inadequacy and in rehabilitating the maladjusted. Fourth grade or better reading ability can be developed; "one-third to two-fifths of the adult American population reads below the sixth grade level." Reading ability, in many cases, represents an additional insurance against failure in the community as well as against feelings of inferiority, and has vocational and recreational value.—*R. Goldman* (Boston Psychopathic Hospital).

5698. **Hering, W. Aberglaube und Wahn.** (Superstition and delusion.) Kiel: Lüdtke, 1936. Pp. 21.—*R. R. Willoughby* (Brown).

5699. **Herrmann, J. B., & Barbour, H. G. Catatonia produced by the introduction of heavy water into the cerebrospinal fluid.** *Science*, 1937, **86**, 244–245.—Through a trephine hole in the skull 0.1 or 0.2 cc. of heavy water was introduced into the cerebrospinal fluid of seven rats. The uniform result was catatonia, which developed within a few minutes and lasted for several hours. The same was found in two cats when the heavy water was introduced by spinal puncture. In the cats 0.7 cc. of the water was injected.—*F. A. Mote, Jr.* (Brown).

5700. **Hilscher, K. Die Schwachsinnigenpädagogik zur Zeit des Neuhumanismus.** (Pedagogy of feeble-mindedness at the time of the new humanism.) *Z. Kinderforsch.*, 1937, **46**, 297–305.—Quotations from various writers of the last third of the eighteenth century show that some recognition of mental deficiency as a definite condition existed at that time, together with speculation as to its cause and suggestions for treatment.—*F. L. Goodenough* (Minnesota).

5701. **Hoagland, H., Cameron, D. E., & Rubin, M. A. The "delta index" of the electrencephalogram in relation to insulin treatments of schizophrenia.** *Psychol. Rec.*, 1937, **1**, 196–202.—Although single records of the D.I. of an individual cannot be regarded as diagnostic of schizophrenia, evidence is presented to indicate a clinical correspondence between empirical D.I. values and the changing daily condition of individual schizophrenic patients. —*P.S. de Q. Cabot* (Simmons).

5702. **Hörner, F. Charakterologische Beurteilung von Hilfsschülern.** (Characterological judgment of special-school children.) *Dtsch. Sonderschule*, 1936, **3**, 885.—*P. L. Krieger* (Leipzig).

5703. **Hoven, H. A propos des recherches généalogiques dans les démences.** (On genealogical researches in conditions of dementia.) *J. belge Neurol. Psychiat.*, 1937, **37**, 393–398.—A brief discussion of the studies by a few authors on the role of heredity in mental disorders. While the principles of transmission are still doubtful, there appears to be a definite relationship between the presence of dementia praecox, tuberculosis and epilepsy within a given family.—*H. Syz* (Cornell).

5704. **Humphreys, E. J. Mental deficiency as a part of human deficiency.** *In* A Volume to Commemorate the 65th Birthday of Nelson Fithian Davis, Bucknell Univ. Boston: (Privately printed), 1937. Pp. 117–124.—The author presents several short case-history pictures of defectives and comments upon the very close relationship existing between biology, sociology, medicine, and psychology in their treatment. He suggests a program for the control and prevention of defect. The hope is expressed that treating the defective will teach us wisdom in human government.—*F. A. Mote, Jr.* (Brown).

5705. **Jelliffe, S. E. The ecological principle in medicine.** *J. abnorm. soc. Psychol.*, 1937, **32**, 100–121.—The ecological principle demands information of a total quality. It is not satisfied with a chemical explanation alone, nor one at the biological level alone, nor yet one at the purely psychological level—each must give its fraction to the total picture. Just what the intricate equating at these roughly indicated levels may be constitutes the work of the conscientious physician. Apart from accident, much chronic so-called organic disease is a type of conservative response to ideological adaptations. In order not to become psychotic, one of the modes of compromise adaptation is some form of somatic destruction. The great run of human beings refuse to alter their habits. These represent their infantile pleasure-principle patterns, and when such meet with reality they compromise in some form of illness from which they resist being torn loose. Nearly all the organs of the body, from the skin outside to the blood inside, show efforts at ecological adaptation to faulty patterns of action. Thus behavior patterns eat their way into anatomical patterns.—*C. H. Johnson* (Boston Psychopathic Hospital).

5706. **Juda, —. Psychiatrisch-genealogische Untersuchungen an 147 Hilfsschülern.** (Psychiatric-genealogical investigation of 147 special-school children.) *Psychiat.-neurol. Wschr.*, 1936, No. 2, 22.—*P. L. Krieger* (Leipzig).

5707. **Kemp, T. De asociale og forsorgen for dem.** (The asocials and their care.) *Ugeskr. Laeger*, 1937, **99**, 1009–1014.—A general discussion of the problems and care of all kinds of asocial groups and individuals as found in our present society, with special reference to Danish conditions. The following precautionary recommendations are offered: the eugenic approach, sterilization; a general educational program regarding the problems involved in feeble-mindedness, psychotherapy, criminality, etc.; easy access to psychiatric assistance by the establishment of more polyclinics; diagnosis of mental abnormalities and defects in early childhood; special schools for psychotic and feeble-minded children; continued control of such after release (at present just one third of all feeble-minded are under public care in Denmark); better education and training of more social workers; in short, a comprehensive public program of mental hygiene.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5708. **Kinder, E. F. Psychological work at Letchworth Village, Thiells, N. Y.** *J. consult. Psychol.*, 1937, **1**, 76–80.—A brief history of the development of the research department of this institution, with particular reference to the clinical service, educational activities and research in psychology.—*P.S. de Q. Cabot* (Simmons).

5709. **Klein, M. Zur Psychogenese der manisch-depressiven Zustände.** (The psychogenesis of manic-depressive states.) *Int. Z. Psychoanal.*, 1937, **23**, 275–305.—Translation of "The psychogenesis of manic-depressive states," *Int. J. Psychoanal.*,

1935, 16, 145–174 (see IX: 5162).—*H. J. Wegrocki* (Minnesota).

5710. **Kloos, G. Über kataleptische Zustände bei Schizophrenen. Ein Beitrag zur Pathologie der Willenshandlung.** (Cataleptic states in schizophrenia. A contribution to the pathology of voluntary action.) *Nervenarzt*, 1936, 9, 68.—*P. L. Krieger* (Leipzig).

5711. **Knight, R. P. The dynamics and treatment of chronic alcohol addiction.** *Bull. Menninger Clin.*, 1937, 1, 233–250.—This paper gives a preliminary report on the analysis of ten assorted cases of chronic alcohol addiction. The author distinguishes two types, the essential and the reactive. Certain common etiological factors are pointed out, prognostic appraisals are made for the two types, and suggestions for therapy are given.—*J. F. Brown* (Kansas).

5712. **Kogerer, H. Grenzen der Psychotherapie.** (Limitations of psychotherapy.) *Zbl. Psychotherap.*, 1937, 10, 32–33.—Author's abstract of a longer article. The topics treated are the transitions between psychotherapy and mental hygiene; the indispensable co-operation between physician (individual, scientific) and clergyman (supra-individual, metaphysical); the shifting boundaries between psychic and somatic treatment, with psychophysical unity as the ideal; and the application of depth psychology only so far as the patient's interests require.—*M. E. Morse* (Baltimore).

5713. **Landis, C., Hunt, W. A., & Page, J. D. Studies of the startle pattern: VII. Abnormals.** *J. Psychol.*, 1937, 4, 199–206.—The investigation of the startle pattern by rapid cinematographic technique is extended to neurological and psychiatric patients to determine whether this native and stable response is modified. In 118 cases of functional and organic mental diseases and in an additional group of 109 epileptic patients no qualitative differences from the normal picture appeared except a slight tendency for more negative movements. Quantitative differences were present. "Dementia praecox cases, particularly catatonics, showed, in general, more pronounced responses than we found in any other group of individuals, either normal or pathological. Manic-depressive cases in both phases showed more reaction than normals, and not as much as the schizophrenics. Encephalitic and paretic groups seen comparable to the normal. Epileptic patients showed a very significant quantitative decrease in all elements of the response. In one-fourth of the cases there was a total absence of the startle pattern, including an eye-blink. In an additional 10% of these patients only the eye-blink occurred. In still other patients the pattern was further disorganized. We have not been able to relate the absence or disorganization of the startle pattern in the epileptic patients to medication, neurological findings, or any other clinical hospital data which were available."—*J. McV. Hunt* (Brown).

5714. **Langdon-Brown, W., Ladell, R. G. M., Gray, F., & Crookshank, F. G. The place of psychology in the medical curriculum and other papers.** London: Daniel, 1936. Pp. 56. 2/6.—Four papers written by physicians who believe that psychology is essential in the practice of medicine. Education in this field is urged by Langdon-Brown. The importance of psychology in the diagnosis and treatment of disease is shown by Ladell. He believes no distinct line may be drawn between organic and functional diseases; so that the same knowledge of psychology is necessary for the physician, psychiatrist and psychoanalyst. After citing a number of cases Gray concludes that "every illness is the neurotic solution of an internal conflict." Adler's theory of organic inferiorities is discussed by Crookshank. The control of the psychical life is believed important for the avoidance of disease.—*O. W. Richards* (Spencer Lens Company).

5715. **Langfeldt, G. The prognosis in schizophrenia and the factors influencing the course of the disease.** *Acta psychiat., Kbh.*, 1937, Suppl. XIII. Pp. 228.—In the present work the author has attempted to elucidate the prognosis for the group of diseases included under the name schizophrenia. At the same time he has investigated the prepsychotic and actual factors likely to exert an influence on the prognosis. The material comprises 100 cases of "undoubted" schizophrenias which were admitted to the clinic during the years 1926–29 and which were all personally re-examined by the author in 1936. The work has three main divisions: (1) the prepsychotic heredity, bodily constitution, type of temperament, abilities, psychopathic features, interests, and sociological conditions in their relationship to the course, (2) factors in connection with the initial stage of the psychosis (eventual precipitating factors—previous illnesses, abuse of alcohol, psychic traumas and the like, the significance of the age at which the disease appears, the significance of sudden vs. insidious onset), (3) the prognostic significance of the mental symptomatology in the acute phase of the psychosis. Of the 100 cases 66% were uncured or worse after the lapse of 6–10 years, with persisting process symptoms or in a defective state after the course had run; 13% were improved, 4% cured with defects, and 17% completely cured. Only precise statements and preferably a careful casuistics can contribute toward bringing the study of schizophrenia into forms which permit of international co-operation for a solution of the problems.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5716. **Leuba, J. La famille névrotique et les névroses familiales.** (The neurotic family and familial neuroses.) *Rev. franç. Psychanal.*, 1936, 9, 360–419.—The author has two axioms which he considers fundamental: "Children have no more formidable enemies than their parents," and "The family is a group of people who hate each other and who are obliged to live together." He describes the transmission of the familial neurosis through several generations of one family and discusses the effect of heredity in its transmission. Factors which ap-

pear to play an important role in the familial neurosis are a virility complex in the woman, excessive severity of the father, and a castration complex in the father. The role of the dominant religion may be a factor in the situation.—*F. G. Allen* (Brown).

5717. **Lottig, H. Psychopathische Persönlichkeiten und psychopathische Reaktionen.** (Psychopathic personalities and psychopathic reactions.) *Fortsch. Neurol. Psychiat.*, 1937, **9**, 354–372.—The volume of work in the field has greatly increased during the period since the 1934 review of publications. The author comments on the latest edition of Schneider's monograph *Die psychopathische Persönlichkeiten* and on Hoffman's "strata" theory. There are brief discussions of many similar publications. Bibliography.—*D. S. Oberlin* (Delaware State Hospital).

5718. **Malz, W. Ein Beitrag zur Frage der mongoloiden Idiotie; gibt es einen latenten Mongolismus?** (A contribution to the question of Mongoloid idiocy. Is there a latent Mongolism?) *Mschr. Kinderheilk.*, 1937, **70**, 376–380.—Many children, not classified as Mongolians, nevertheless show one or more of the recognized physical signs of Mongolism, such as the epicanthic fold, reduced occipital bosses, brachycephalic head, etc. The question is raised whether these cases may perhaps represent a latent form of Mongolism.—*F. L. Goodenough* (Minnesota).

5719. **Malzberg, B. Rates of mental disease among certain population groups in New York State.** *J. Amer. statist. Ass.*, 1936, **31**, 545–548.—Native-born residents of New York State are admitted to hospitals for the mentally diseased in much smaller proportions than are those born elsewhere. Effects associated with age and race fail to disturb this conclusion, and in fact additional evidence is shown for the proposition that the higher proportion of mental cases among the foreign-born is an effect associated with migration rather than with race or nationality.—*E. E. Cureton* (Alabama Polytechnic Institute).

5720. **Marinus, C. J. Psychological patterns in school children with endocrine disorders.** *J. except. Child.*, 1937, **4**, 9–12.—Retarded children may be divided into five groups: (1) true inherited feeble-mindedness; (2) organic brain injury; (3) congenital thyroid deficiency; (4) thyroid deficiency complicated by birth injury; and (5) other organic brain disorders. The author considers each of the five and makes a plea for early diagnosis.—*L. A. Averill* (Worcester State Teachers College).

5721. **McGhie, B. T. The problem of the subnormal in the community.** *Canad. publ. Hlth J.*, 1937, **28**, 105–112.—*R. R. Willoughby* (Brown).

5722. **Meyer, A., & Cook, I. C. Diffuse white matter gliosis in mental defectives.** *J. ment. Sci.*, 1937, **83**, 258–267.—Histological studies of the brains of 22 mental defectives of various types show a fairly constant, and in some cases an unexpected, pathology of the white matter of both cerebrum and cerebellum. These lesions were often more pronounced and more diffuse than those in the cortex, and the importance of studying the entire brain in such cases is emphasized. The author defers any comprehensive attempt at discussion or interpretation until more facts are available. Discussion by the audience which heard the paper read provided some confirmation of the findings. Illustrated with plates.—*C. J. Herrick* (Pennsylvania).

5723. **Minkowska, F. Epilepsie und Schizophrenie im Erbgang.** (Epilepsy and schizophrenia in descendants.) *Arch. Klaus-Stift. VererbForsch.*, 1937, **12**, 33–218.—Splitting of the epilepsy problem into a neurological and a psychiatric aspect is untenable. Genuine epilepsy is an autonomous unity, in the origin of which heredity plays a decisive role. In addition to the degenerative factor there is also plainly a regenerative one. The "glischeroid" constitution, in both its psychic and physical aspects, predisposes to the disease. This constitution is polarized as is the epileptic structure, its poles—fall and rise—characterizing all its manifestations. The seizure is only a secondary phenomenon. The primary feature is neither the psychic nor the organic irritability, but rather the viscosity which causes stasis. The characteristic "obnubilation" of the psyche is fundamentally only a particular manifestation of this stasis.—*P. L. Krieger* (Leipzig).

5724. **Miskolczy, D. Die örtliche Verteilung der Gehirnveränderungen bei der Schizophrenie.** (The spatial distribution of alterations in the brain in schizophrenia.) *Psychiat.-neurol. Wschr.*, 1937, **39**, 145–147.—*P. L. Krieger* (Leipzig).

5725. **Moe, G. Forsorg for åndssvake.** (Care of the feeble-minded.) *Tidskr. norske laegeforen.*, 1937, **57**, 664–669.—According to the law of June 1, 1934, sterilization of the feeble-minded is now permitted in Norway. The writer presents typical family cases from his own practice showing the need of sterilization, and makes a general plea for better public care of the feeble-minded in Norway. —*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5726. **Moniz, E. Prefrontal leucotomy in the treatment of mental disorders.** *Amer. J. Psychiat.*, 1937, **93**, 1379–1385.—The operating technique is described and three case histories are cited.—*R. Goldman* (Boston Psychopathic Hospital).

5727. **Morgan, J. J. B. Mental hygiene and adjustment: community influences.** *Rev. educ. Res.*, 1936, **6**, 478–489.—A review and summary of literature and investigations dealing with the existing relationships between certain community factors and mental hygiene. Specifically, these community factors or forces are: the family with its variables of size, make-up, and attitudes; play and recreation; the economic depression; motion pictures; and radio.—*D. Bailey* (Mt. Holyoke).

5728. **Neun, W. Ungewöhnliche Psychose nach Typhus.** (An unusual psychosis following typhus.) Berlin: Neuland Druck, 1937. Pp. 19.—*R. R. Willoughby* (Brown).

5729. **Olson, W. C. Mental hygiene and adjustment: technics and instruments of mental hygiene.** *Rev. educ. Res.*, 1936, **6**, 524–536.—A review of literature to Jan. 1, 1936, presenting a summary of articles having a research orientation. The author surveys the systematic formulations of the field, such as psychoanalysis, child psychiatry, child development, and sociology, then presents the technics employed in diagnosis and treatment, and after presenting illustrative case procedures discusses the appraisal of effects of treatment.—*D. Bailey* (Mt. Holyoke).

5730. **Oppenheimer, E. Über die Korrelation zwischen Intellekt und Psychomotorik bei schwachsinnigen Kindern und Jugendlichen.** (The correlation between intellect and motor phenomena in feeble-minded children and youths.) *Psychiat. Neurol. Bl., Amst.*, 1936, No. 1a, 283.—*P. L. Krieger* (Leipzig).

5731. **Patry, F. L. A state-wide mental hygiene program for elementary schools.** *J. abnorm. soc. Psychol.*, 1937, **32**, 74–99.—A general survey of mental hygiene philosophy of education is discussed, with a summary of focal points to be adopted by the class-room teacher. Policies governing the organization of a suggested mental hygiene program on a state-wide basis are briefly formulated. Suggestions for supervising a state-wide mental hygiene program are discussed. Descriptions are given of personnel qualifications. How the mental hygiene program is related to teacher education institutions is briefly described, and features militating against as well as those furthering the mental hygiene program are stated. Attention is given to the methods of developing and integrating mental hygiene theory and practice. Several charts serve to illustrate how various aspects of the mental hygiene program may operate.—*C. H. Johnson* (Boston Psychopathic Hospital).

5732. **Patzig, B. Vererbung von Bewegungsstörungen.** (Inheritance of motor disturbances.) *Z. indukt. Abstamm.- u. VererbLehre*, 1935, **70**, 476.—*P. L. Krieger* (Leipzig).

5733. **Petrova, M. K. Sluchai eksperimentalnogo nevroza, izlechennyi pri pomoshchi broma.** (Experimental neurosis cured by bromide.) *Arkh. biol. Nauk*, 1934, **34**, 15–39.—German summary.—(*Biol. Abstr.* XI: 11082).

5734. **Petrova, M. K. Dalneishie materialy k opredeleniiu sily nervnoi sistemy eksperimental'nykh zhivotnykh. Povyshenie pishchevoi vozbudimosti (golodanie) i brom kak indikatory sily nervnoi sistemy.** (Further studies on determination of the strength of the nervous system in experimental animals. Increased alimentary excitability and bromide as indicators.) *Arkh. biol. Nauk*, 1934, **34**, 41–62.—German summary.—(*Biol. Abstr.* XI: 11083).

5735. **Popescu-Sibiu, I. Factori sociali in mecanismul isteriei.** (Social factors in the mechanism of hysteria.) *Bul. Soc. Psihol. med.*, 1936, **2**, 89–93.—Hysteria is explained entirely by psychological factors; somatic and physiological factors do not seem to have any importance. The psychological nature of hysteria is evident especially in some of its manifestations related to simulation, suggestion, hypnosis, emotional shock, etc. Its treatment should also be mainly psychological.—*N. Margineanu* (Cluj, Rumania).

5736. **Popescu-Sibiu, I. Aspectul psihologic si social al psihoterapiei.** (Psychological and sociological aspects of psychotherapy.) *Bul. Soc. Psihol. med.*, 1937, **3**, 71–75.—Psychotherapy should have a larger place in mental hospitals. Mental diseases are first of all psychological, and very little somatic and physiological. The social environment seems also to play a large role.—*N. Margineanu* (Cluj, Rumania).

5737. **Pötzl, O., & Hoff, H. Reine Wortblindheit bei Hirntumor.** (Pure word-blindness in brain tumor.) *Nervenarzt*, 1937, **10**, 385–394.—A clinical report of a patient with epileptiform attacks, pure word-blindness without hemianopsia or disturbances of color vision, and intact writing ability. Other agnostic disturbances were absent, and there were only traces of amnestic aphasia. This syndrome is unusual in brain tumor, but the diagnosis was verified at operation.—*P. L. Krieger* (Leipzig).

5738. **Preda, G. Paralelismul dintre evolutia histeriei si hipnozei care intareste existenţa si analogia lor.** (Parallelism between hysteria and hypnosis.) *Bul. Soc. Psihol. med.*, 1936, **2**, 37–41.—After a study of the etiology of hysteria its close relation to hypnosis is stated. Hypnosis seems to be the main factor in hysteria. A critical analysis is made of different arguments raised by various psychiatrists for and against this theory.—*N. Margineanu* (Cluj, Rumania).

5739. **Preda, G. Conditiile in care se creiaza histeria (nevroza spontana) si hipnoza (nevroza provocata).** (Conditions for diagnosing hysteria—spontaneous neurosis—and hypnosis—induced neurosis.) *Bul. Soc. Psihol. med.*, 1936, **2**, 47–48.—Hysteria and hypnosis are very similar. They seem to be the same neurosis with the single difference that one is spontaneous and the other induced. The mechanism, course, and genesis are the same; only the causes are different.—*N. Margineanu* (Cluj, Rumania).

5740. **Preda, G. Date stiintifice care explicind odata mai mult mecanismul psihic confirma existenta bunei credinte in ambele nevroze (histerie si hipnoza).** (New scientific data concerning the mechanisms of psychological life which confirm the credibility of hypnosis and hysteria.) *Bul. Soc. Psihol. med.*, 1936, **2**, 49–56.—Hysteria and hypnosis are not simulation; they are real hypnosis. This is true in the majority of cases which look for medical care in hospitals. Cases of simulated hysteria and hypnosis occur, but they are rare. The mechanisms of hysteria and hypnosis are nearly identical. Further comments concerning Kretschmer's theory of hysteria are given.—*N. Margineanu* (Cluj, Rumania).

5741. **Preda, G. Cauze care fac sa se rareasca aparitia starilor de histerie si de intrebuintare a hipnozei.** (Causes which make hysteria and hypnosis rarer.) *Bul. Soc. Psihol. med.*, 1936, **2**, 57–62.—The way in which the process of socialization of biological tendencies is developing is the main cause of hysteria. Hysteria appears when this process is unsuccessful. In order to decrease the number of hysterics one must facilitate adaptation to social environment. Social environment also should be adapted to biological tendencies.—*N. Margineanu* (Cluj, Rumania).

5742. **Preda, G. Cadrul igienii si profilaxiei mintale.** (The field of mental hygiene and prophylaxis.) *Bul. Soc. Psihol. med.*, 1937, **3**, 45–70.—A general statement of the field and problems of mental hygiene and prophylaxis. Among the main conclusions are: (1) Mental hygiene is a special science with its own field of research. (2) It has close relations with psychology, psychiatry, biology, etc. (3) Though mental hygiene uses the data of these sciences, it has its specific field; it is a practical science, and must systematize biological, psychological, sociological and medical data in the light of practical applications. (4) The independence of mental hygiene as well as its importance can also be appreciated from the large number of publications in this field and from the large number of institutions organized throughout the world. (5) Similar institutions are necessary in Rumania. Existing institutions are too few.—*N. Margineanu* (Cluj, Rumania).

5743. **Preda, G. Darea de seama asupra activitatii spitalului de boli mintale si nervoase din Sibiu anul 1937.** (Report for 1937 of the activity of the Sibiu hospital for mental diseases.) *Bul. Soc. Psihol. med.*, 1937, **3**, 85–111.—The hospital has a psychological laboratory, provided with tests and apparatus. Psychological examinations for various intellectual functions or temperament and character traits have been made on 1963 persons.—*N. Margineanu* (Cluj, Rumania).

5744. **Preda, G., & Stoenescu, T. Raportul dintre histerie si hipnoza.** (The relation between hysteria and hypnosis.) *Bul. Soc. Psihol. med.*, 1936, **2**, 35–36.—Certain psychiatrists consider hysteria as determined entirely by hypnosis, while others believe they do not have anything in common. The authors' psychiatric experience shows a close relation. Hysteria seems to depend very much upon hypnosis, and can be produced by it, but only in certain psychopathic constitutions.—*N. Margineanu* (Cluj, Rumania).

5745. **Preda, V. Noui contributii la studiul antropometric al capului la alienate.** (New contributions to the anthropometric study of the head in insane women.) *Bul. Soc. Psihol. med.*, 1936, **2**, 77–88.—An anthropometric study of insane women suffering from schizophrenia (50 cases), mania (50 cases), paranoia (32 cases) and hypophrenia (30 cases). The facial diameter and indexes seem to be different from one mental disease to another. A somatic constitution of these diseases is indicated.—*N. Margineanu* (Cluj, Rumania).

5746. **Pressey, S. L. Mental hygiene and adjustment: school influences.** *Rev. educ. Res.*, 1936, 6, 471–477.—A review of literature dealing with the development of research and experimentation in the field of mental hygiene, particularly as it has been related to the school program. The importance of mental hygiene in the selection and training of teachers, in guiding school procedures, and in determining the forms of motivation to be used are points of consideration, with other sections on the relation of mental hygiene to academic progress and to character education programs or methods.—*D. Bailey* (Mt. Holyoke).

5747. **Robbins, B. S. Escape into reality: a clinical note on spontaneous social recovery.** *Psychoanal. Quart.*, 1937, 6, 353–364.—The findings made during analysis initiated subsequent to a spontaneous social recovery from an acute psychotic episode in a 43-year-old man are reported to show the means by which his return to social health was achieved. The analysis disclosed that the dynamics operative in the recovery were largely in response to internal cravings rather than to external realities; that the shift from unreality to reality arose from an internal need to modify the psychotic attitude in order to reinforce and increase an already depreciated self-esteem further threatened by internal forces; and that this modification of the psychotic attitude fortuitously fitted in with reality, thereby permitting social recovery. Anamnestic material obtained during analysis is cited to illustrate both the dynamics of the development of the psychotic episode and the processes involved in recovery.—*M. H. Erickson* (Eloise Hospital).

5748. **Roggenbau, C. Zur Frage der körperlichen Störungen der endogenen Psychosen und ihre Verwertbarkeit in differentialdiagnostischer Hinsicht.** (On the question of physical disorders in the endogenous psychoses and their utilization in regard to differential diagnosis.) *Mschr. Psychiat. Neurol.*, 1936, **92**, 243.—*P. L. Krieger* (Leipzig).

5749. **Rosanoff, A. J., Handy, L. M., & Plesset, I. R. The etiology of mental deficiency with special reference to its occurrence in twins: a chapter in the genetic history of human intelligence.** *Psychol. Monogr.*, 1937, **48**, No. 4. Pp. 137.—The purpose of this study was to ascertain in what developmental period (pregerminal, germinal, embryonic, intranatal, or postnatal) the etiological factors of mental deficiency, excluding mongolism, are operative. It was found that in 126 pairs of monozygotic twins both twins were affected in 115 cases and one alone in 11 cases. In 101 pairs of same-sex dizygotic twins both twins were affected in 62 cases and one only in 39 cases. In 139 pairs of opposite-sex twins both twins were affected in 66 cases, the male alone in 49 and the female alone in 24 cases. The conclusions are that pregerminal (i.e., hereditary) and germinal factors, although important, are not in themselves adequate and are often absent (and therefore not

essential) in the etiology of mental deficiency. All evidence "points directly and indirectly to cerebral birth trauma as a factor of the highest importance in the etiology of mental deficiency." The study of additional material (308 pairs of twins and 880 groups of siblings of normal and superior intelligence) seems to indicate that the sex distribution of intelligence is unequal and that mental deficiency is more common in the male than in the female sex.—*K. F. Muenzinger* (Colorado).

5750. **Schorsch, G. Ursachen der psychopathischen Leistungsschwäche.** (Causes of psychopathic weakness of performance.) *Nervenarzt*, 1936, 9, 278–282.—*P. L. Krieger* (Leipzig).

5751. **Schottky, J. Über einen künstlerischen Stilwandel in der Psychose.** (Concerning a change in artistic style in psychosis.) *Nervenarzt*, 1936, **9**, 68.—*P. L. Krieger* (Leipzig).

5752. **Seabury, D. Help yourself to happiness.** New York: Whittlesey House, McGraw-Hill, 1937. Pp. 355. $2.50.—Practical information on mental hygiene to help the average reader to cure himself of his simpler mental difficulties.—*R. R. Willoughby* (Brown).

5753. **Skalweit, W. Schizophrenie.** (Schizophrenia.) *Fortsch. Neurol. Psychiat.*, 1937, **9**, 326–353.—The author reviews the publications of the past year which are concerned with schizophrenia. He comments on the wealth of material and on the present trend toward seeking toxic-infectious origins, as well as the need of classification and clarification of symptoms and types. The aspects with which the various articles are concerned are: pathogenesis, the relationship between schizophrenia and the vegetative system, studies of blood and fluid, encephalography, clinical methods, pathopsychology and therapy, the latter including Sakal's work with insulin shock treatment. There is a bibliography.—*D. S. Oberlin* (Delaware State Hospital).

5754. **Stefanescu-Goanga, F. Contributia psihologiei experimentale la psihiatrie.** (Contributions of experimental psychology to psychiatry.) *Bul. Soc. Psihol. med.*, 1936, **2**, 1–5.—A critical review. The contributions are mainly methodological. They bring a quantitative record and interpretation of data, eliminating subjectivism and unifying the language. The results of experimental psychology often make clear difficult psychiatric problems. Experimental method makes possible correlations and comparisons between results obtained by different investigators. Intelligence tests are a very important instrument in diagnosing many mental diseases. IQ's and other coefficients give valuable indications in diseases which are just beginning; consequently they make possible certain prophylactic measures. The normal people studied by psychology are an important point of reference for abnormal and pathological people. They also make possible a quantitative measure of the deviation from the normal. Psychological methods are also very useful in distinguishing real pathological states from simulated states.—*N. Margineanu* (Cluj, Rumania).

5755. **Stemplinger, F. Beitrag zur Abgrenzung der physiologischen Dummheit vom angeborenen Schwachsinn leichtestem Grades.** (Contribution to the differential diagnosis between physiological dullness and the lightest degree of congenital feeblemindedness.) *Veroff. Volksgesundheitsdienst.*, 1936, **47**, H. 4. Pp. 73. RM 3.40.—Stemplinger discusses the concept of intelligence, its levels and development in the normal and feeble-minded; hereditary weakness; the distinction between endowment and accomplishment; the relations between intelligence and poor social attainment; special schools; intelligence tests and a proposal for their improvement on the basis of psychological experiment. The distinction between physiological and pathological dullness lies in qualitative differences not only in the intellectual but also in the characterological sphere.—*F. Stemplinger* (Nürnberg).

5756. **Stevenson, G. S. Mental hygiene and adjustment: historical development and modern trends.** *Rev. educ. Res.*, 1936, **6**, 461–470.—A review of literature to Jan. 1, 1936, showing the relation of research in the broader aspects of physical and social sciences to the development of mental hygiene. The role of developing empirical techniques and refinements in techniques is stressed.—*D. Bailey* (Mt. Holyoke).

5757. **Stoichitia, I. Importanta organizarii igienei si profilaxiei mintale.** (Importance of mental hygiene and prophylaxis.) *Bul. Soc. Psihol. med.*, 1937, **3**, 1–4.—A review of mental-hygienic and prophylactic institutions of Rumania in comparison with other countries. The Rumanian government provides about 10,000 beds for the insane, that is, 31.9 beds per hundred thousand population. The proportion seems to be unsatisfactory, and the government must pay more attention to mental hygiene and prophylaxis. The organization of hospitals for mental diseases ought also to be changed. Every hospital should have a psychological laboratory headed by a psychologist.—*N. Margineanu* (Cluj, Rumania).

5758. **Stransky, E. Rasse und Psychotherapie.** (Race and psychotherapy.) *Zbl. Psychotherap.*, 1937, **10**, 9–28.—The author announces that he is of pure Jewish ancestry "rooted in Germany," and that he speaks from the central European standpoint. Other white races differ psychologically from Europeans and are skeptical of their values. German psychology has a barbaric background, whereas the Jew has assimilated both ancient culture and that of his hosts, but is bitterly perplexed about the new forces from below, dangerously concentrated in Germans. Many cultivated Jews are instinctively and uncontrollably antagonistic to the most cultivated Aryan values, while many educated Aryans have world-views which unconsciously prevent guidance by even Aryotropic Jewish physicians. A racial difference may, however, be ad-

vantageous to Gentile patients because the Jew has an unusual understanding of neurotics. On the other hand a Jewish patient, not yet completely emancipated from ghetto feelings, looks up to an Aryan more than to a Jewish physician of equal attainments, since he draws the latter into his own inferiority complexes.—*M. E. Morse* (Baltimore).

5759. **Sussmann, L. Beitrag zum Problem der Träume der Schizophrenen.** (A contribution to the problem of dreams in schizophrenia.) *Nervenarzt*, 1936, **9**, 453–466.—*P. L. Krieger* (Leipzig).

5760. **Symonds, P. M., & Anderson, J. P. Mental hygiene and adjustment: the normal child.** *Rev. educ. Res.*, 1936, **6**, 490–498.—A review of literature and research studies which bear on positive mental health, with the mental hygiene of the chronological periods of childhood, adolescence, early adulthood, middle age and senescence, serving as the plan for organization of the first part. Sex adjustments and the mental hygiene of industry are separately treated.—*D. Bailey* (Mt. Holyoke).

5761. **Thorndike, R. L. A note on the relationship of allergy to neurasthenic traits.** *J. gen. Psychol.*, 1937, **17**, 153–155.—This questionnaire study substantiates the results of Kling in showing correlations of .30–.50 between allergy and neurasthenic traits. An item analysis suggests that feelings of personal inadequacy are related to the presence of allergy.—*H. Schlosberg* (Brown).

5762. **Todoranu, D. Principii de igiena mintala.** (Principles of mental hygiene.) *Indrumari Univ., Cluj*, 1936, **1**, 133–161.—General principles of mental hygiene for students, designed to cultivate a healthful personality. Among the various suggestions: self-knowledge, environment knowledge, organic health, confidence and optimism, controlled effort, sublimation, satisfaction with relative progress and achievement, perseverance instead of hurry, efficient sensitivity to criticism, living on a realistic plane, search for a suitable profession, normal inhibition, etc.—*N. Margineanu* (Cluj, Rumania).

5763. [**Various.**] **An inquiry into the incidence of "neuropathic" conditions in the relatives of normal persons.** *J. ment. Sci.*, 1937, **83**, 247–257.—On the basis of questionnaires returned by 415 normal persons it was found that 57% reported some neuropathic family history and 23% "some major neurological or psychiatric abnormality in the family." If these figures are in error it is believed that they are too low. Statistical analyses indicate that families with abnormal persons are not significantly larger than those without.—*C. J. Herrick* (Pennsylvania).

5764. **Velasquez, J. O. Familiärer Selbstmord und psychopathische Vererbung.** (Familial suicide and psychopathic heredity.) *Rev. Criminol., B. Aires*, 1935, **22**, 681.—*P. L. Krieger* (Leipzig).

5765. **Vildauers, M. Zur Frage des moralischen Defektes.** (The problem of moral defect.) Riga: Herold, 1937. Pp. 21.—*R. R. Willoughby* (Brown).

5766. **Wexberg, E. Nervous disease and nutritional deficiency.** *Sth. med. J.*, 1937, **30**, 334–342.—*R. R. Willoughby* (Brown).

5767. **Williams, J. H. Mental hygiene and adjustment: behavior problems and delinquency.** *Rev. educ. Res.*, 1936, **6**, 499–513.—A review of literature to Jan. 1, 1936, dealing with the relation of mental hygiene to problems of behavior and delinquency. The main topics included, with their sub-topics, are as follows: symptoms of maladjustment, under which types of misconduct, emotional and mental characteristics, methods of observation, and prediction of delinquency are discussed; causes of behavior difficulties, discussed from the viewpoint of constitutional factors and environmental factors; mental aspects of behavior maladjustment, considered in the light of intelligence tests, achievement and aptitude tests, and mental disorders; treatment of behavior problems, with provisions in regular schools, special schools, segregated groups, and foster homes as the particular centers of interest; and last, the relationship to courts and society, in which extent and distribution of delinquency, its prevention, and juvenile court procedures are considered.—*D. Bailey* (Mt. Holyoke).

5768. **Zulliger, H. Schranken und offene Wege bei der Psychopathenerziehung.** (Ways and limitations in the education of psychopaths.) *Schweiz. Erzieh.-Rdsch.*, 1937, **10**, 23–26.—Typical or pure forms of psychopaths are not found. However, certain reaction types, which appear repeatedly, can be designated because they leave their traces on the individual (Bleuler's classification). The specific symptoms are often mixed. It is the task of the counselor to direct the aggressive symptoms of the psychopath into socially approved channels and fixate them on approved goals, or, in the recalcitrant, to remake the symptoms into normal ones through rest, patience, and knowledge. This includes also the weaning of the subject from the stabilizing counselor through the inner perceptualizing in the subject of his ideal, his "imago." Out of the idealized picture of the counselor the subject comes to build (quite unconsciously) his ego-ideal, so that eventually he can assume a normal role in society without the personal help of the counselor.—*P. L. Krieger* (Leipzig).

[See also abstracts 5440, 5549, 5562, 5643, 5654, 5665, 5774, 5775, 5893, 5902, 5904, 5969, 5985.]

PERSONALITY AND CHARACTER

5769. **Barbu, Z. Problema femeii.** (Psychology of women.) *Freamatul Scoalei*, 1936, **2**, 169–180.—A general statement of the main problems of the psychology of women. Present life conditions of our European and American civilization seem to affect the so-called "feminine traits" markedly.—*N. Margineanu* (Cluj, Rumania).

5770. **Behr-Pinnow, C. v. Methodologisches für die Erforschung geistiger Erbanlagen.** (Methods for the investigation of hereditary mental Anlagen.)

Z. Rassenk., 1937, **5**, 1–20.—The author considers the realistic and romantic attitudes as the psychic equivalents of Kretschmer's division of temperaments. Following this schema, he discusses the separate and combined appearance of hereditary units in the psyche of 20 German and Swiss poets. Liliencron is the clearest example of the permanent combination of realistic and romantic tendencies, while more than half of the cases incline either to the one or the other attitude in correspondence with the physical type. The slight value of psychological tests is emphasized.—*P. L. Krieger* (Leipzig).

5771. **Bousfield, W. A., & Barry, H., Jr. Quantitative correlates of euphoria.** *J. exp. Psychol.*, 1937, 21, 218–222.—In this study subjects first rated their present euphoria on a + 5 to − 5 basis. Following this rating they were requested to write as many pleasant and unpleasant items as they could. An analysis of the results shows that, when averages are considered, euphoria varies directly with the ratio of the pleasant to the unpleasant items. Thus, the individual who reports high euphoria tends to make a relatively large number of pleasant productions and a relatively small number of unpleasant ones. The items reported by an individual with a lower euphoria, on the other hand, include relatively fewer that are pleasant and relatively more that are unpleasant. Euphoria is properly regarded as an attitude. This attitude may be made the object of definite experimentation.—*H. W. Karn* (Pittsburgh).

5772. **Brown, W. T., & Gildea, E. F. Hyperthyroidism and personality.** *Amer. J. Psychiat.*, 1937, **94**, 59–76.—"There is a constitutional predisposition to hyperthyroidism implicating a sensitive thyroid gland. Persons constitutionally so predisposed experience feelings of personal insecurity, a strong sense of responsibility, and a tendency to turn the effects of emotional experiences within rather than give them outward expression."—*R. Goldman* (Boston Psychopathic Hospital).

5773. **Clauss, L. F. Rasse und Charakter. I. Die lebendige Antlitz.** (Race and character. I. The living face.) Leipzig: Diesterweg, 1936. Pp. 109.—*R. R. Willoughby* (Brown).

5774. **Conklin, E. S. Three diagnostic scorings for the Thurstone personality schedule.** *Ind. Univ. Publ. Sci. Ser.*, 1937, No. 6. Pp. 25.—From an analysis of the answers to the Thurstone personality schedule given by groups of normals, psychoneurotics, manic-depressives and schizophrenes it was possible to select certain questions which gave characteristic patterns of response indicating abnormality in general, psychosis in general, and schizophrenia. The diagnostic questions for each pattern and tentative norms are given in full.—*C. M. Louttit* (Indiana).

5775. **Conklin, E. S. Family adjustment influences in the neuroticism score.** *Proc. Ind. Acad. Sci.*, 1937, **40**, 199–201.—Among 100 college students those who admit family difficulties (by giving significant answers to the Thurstone questions regarding family) manifest a greater tendency to abnormalities of personality pattern. Manic-depressive and schizophrenic cases answer these questions significantly more frequently than not, but psychoneurotics do not so answer.—*C. M. Louttit* (Indiana).

5776. **Crook, M. N. The Dunlap dilemma.** *J. abnorm. soc. Psychol.*, 1937, **32**, 6–8.—Responses obtained from students in the University of California at Los Angeles and in Howard University when presented with a dilemma questionnaire similar to that used by Dunlap resulted in scores in the same range as those obtained by Wells. The negative choices ranged from 10.3 to 17.4% for whites and 13 to 21.7% for negroes. (This article is followed by a remark on Wells' questionnaire by Dunlap in which he states that Wells' method of presentation creates a prejudicial attitude.)—*C. H. Johnson* (Boston Psychopathic Hospital).

5777. **Crook, M. N. The constancy of neuroticism scores and self-judgments of constancy.** *J. Psychol.*, 1937, **4**, 27–34.—Willoughby's (Clark-Thurstone) personality schedule was administered to a class in elementary psychology in September and again in May of the same school year. Estimates by the S's of the change in their responses since September were also obtained. Neuroticism as a trait was found to be less stable than intelligence, as shown by a more rapid rate of decrease of the size of retest correlations as the time interval increases. Scores tend to change in the neurotic direction in the course of the school year. Self-estimates of change are highly inaccurate, showing both random errors and a constant error in the direction of unduly favorable estimates.—*J. McV. Hunt* (Brown).

5778. **Crook, M. N. Differential responses to personality test items.** *Psychol. Rec.*, 1937, **1**, 187–194.—The responses of 674 students of both sexes who were given the Willoughby (Clark-Thurstone) personality schedule were analyzed to consider their distribution in the various categories on each item of the test. The distribution pattern characterizing a given item appeared to be independent of age, sex and the method of administering the test. In the case of certain items "a systematic tendency for the subjects to give themselves more favorable ratings than they deserve" was a factor determining the shape of the distribution.—*P.S. de Q. Cabot* (Simmons).

5779. **Dysinger, D. W. A study of mood.** *Psychol. Rec.*, 1937, **1**, 147–156.—An investigation to determine the relationship between 16 subjects' subjective estimates of mood and physical condition, which were recorded twice daily for periods ranging from 18 to 64 days, showed that (1) correlations between estimates of mood and those of physical condition were low, (2) there was no evidence to indicate daily periodicity of moods, (3) there was a general tendency to overestimate one's own level of feeling.—*P.S. de Q. Cabot* (Simmons).

5780. **Eisenberg, P. Expressive movements related to feeling of dominance.** *Arch. Psychol., N. Y.*, 1937, No. 211. Pp. 73.—The hypothesis

was that there are expressive movements which are related to an underlying feeling of dominance. By use of Maslow's social personality inventory and self-ratings administered twice, selected individuals with extremely high and extremely low dominance feelings were found (9 dominant, 8 non-dominant males out of 216, and 24 dominant and 21 non-dominant females out of 238). A syndrome of dominance and non-dominance behavior which parallels the syndrome of dominance and non-dominance feeling was found. Dominant men draw squares and circles, but their speed of walking is slower. Dominant men cover more space on a page. Dominant men are less persistent, and tend to come late for appointments. Dominant women draw squares, and are more persistent than non-dominant women. More dominant persons tend to make comments. Dominant persons are more at ease.—*E. M. Achilles* (Columbia).

5781. **Elmgren, J. La psychologie de la haine.** (The psychology of hate.) *Theoria*, 1937, **3**, 267–282.—A theoretical discussion of the sentiment of hate, with special reference to the views of Janet and Shand. In its ordinary forms hate is claimed to be "a reaction of inferiority unconsciously determined by an intense anguish."—*D. V. McGranahan* (Harvard).

5782. **Harris, A. J. A note on three recent personality tests.** *J. soc. Psychol.*, 1936, **7**, 474–479.—The author gives information about the responses of 236 women college students to the Clark revision of the Thurstone personality schedule, Root's short test of introversion-extroversion, and Pressey's interest-attitude tests.—*E. D. Hunt* (Brown).

5783. **Heuler, R. Die seelische Entwicklung und die Erziehung Krüppelhaften.** (The education and emotional development of cripples.) *Dtsch. Sonderschule*, 1937, **4**, 559–562.—Emotional and mental inferiority is seldom combined with crippling; the most hampering changes lie in the characterological field. A cripple easily becomes taciturn, sly and malicious—not because he is essentially so, but because of harsh treatment. Musical practice is an important factor in dissolving the frequent emotional blocking.—*P. L. Krieger* (Leipzig).

5784. **Heydecke, K. H. Unsere Erfahrungen über den Einfluss der Sterilisierung auf die psychische Gesamthaltung der Sterilisierten.** (Our experience concerning the influence of sterilization upon the mental outlook of the sterilized.) *Psychiat.-neurol. Wschr.*, 1936, 283.—*P. L. Krieger* (Leipzig).

5785. **Kogerer, H. Über das physiologische Minderwertigkeitsgefühl des Mannes.** (The physiological inferiority feeling of the male.) *Zbl. Psychotherap.*, 1937, **10**, 29–32.—Kogerer's thesis is based on the causal connection between the facts that in time and strength the man's contribution to reproduction is slight in comparison with the woman's, and that advances in culture and civilization have been made predominantly by men. The latter is a compensation (unconscious, or conscious only in higher cultural stages) for male feelings of physiological inferiority, although this is not the only source of creative activity. Pathologically, this feeling of reproductive inferiority is compensated by two typical attitudes, flight into neurosis and depreciation of women. The latter attitude appears either as an embittered fight to maintain a threatened position or as a strikingly active furthering of women's masculinization.—*M. E. Morse* (Baltimore).

5786. **Laird, D. A. How to make people like you.** New York: Blue Ribbon Books, 1937. Pp. xviii + 200. $0.98.—Reprint of *Why We Don't Like People*, 1931, 1933. (See VI: 238.)—*R. R. Willoughby* (Brown).

5787. **Landes, R. The personality of the Ojibwa.** *Character & Pers.*, 1937, **6**, 51–60.—The personality of the Ojibwa Indians cannot be understood apart from the social conditions that produce it. Of these conditions the most important are concerned with the quest for livelihood. The effects of social life during the summer months, social withdrawal during the winter months, private ownership of and exclusive control over land, solitary existence during the fast and the hunt, and attitudes toward the supernatural, upon personality development are discussed.—*M. O. Wilson* (Oklahoma).

5788. **Ligon, E. M. Character, science, and religion.** *Religion in Life*, 1937, 218–234.—The author here describes a program of character research that seeks to apply rigorous scientific control to the problem of character development in religious education. Children drawn from a church school are tested in the laboratory of psychology—standard tests being used to measure more than fifty aspects of child behavior. Three groups of variables are involved: (1) the psychogenic dimension—the developmental age of the young and developing child; (2) individual differences, the relative abilities of various individuals with respect to one another; (3) traits of character which it is desirable to inculcate in children. One task is to determine what these traits are, and a second is to utilize laboratory measurements to estimate the extent of their inculcation. The author has made an eight-fold classification of traits which he considers both psychologically and theologically valid, the latter because they are founded upon "a legitimate interpretation" of Jesus' Sermon on the Mount. The method used to make these traits gradually an integral part of the child's personality is that of "drama-type education . . . which gives opportunity for expression on the part of each child, with different roles for children of different abilities."—*F. Feldman* (Union).

5789. **Mazzini, G. [Human biotypology and its social importance.]** Imola: P. Galeati, 1936. Pp. 19.—The author discusses the ideas held by physicians and artists of former ages who were interested in human morphology and its evolution. He takes up the work of the Italian constitutionalist school on the questions of human biotypology, types found in art, the different aspects of personality, and the

relations of biotypology to medicine, pedagogy, and work organization.—*L. Canestrelli* (Rome).

5790. **Moore, T. V. A study in sadism: the life of Algernon Charles Swinburne.** *Character & Pers.*, 1937, **6**, 1–15.—There is evidence to indicate that individuals may vary in their physiological organization, especially within the skin. In some individuals excessive cutaneous stimulation, even though accompanied by pricking, piercing and cutting, may give rise to pleasure. There is ample evidence to show that this was the case with Swinburne. Examples from his writings are cited to show the influence of this trait upon his attitude toward authority, love, sex, morality, and death.—*M. O. Wilson* (Oklahoma).

5791. **Odobescu, G. Le caractère et la vie sociale.** (Character and social life.) *Bul. Soc. Psihol. med.*, 1937, **3**, 11–25.—An analysis of different theories and definitions of character. Much credit is given to Ribot's theory. Unity and stability are the main features of character. Among various factors which determine character the social ones appear to be most important. There is a close relation between the structure of society and the structure and organization of character. A society which lacks unity and stability has fewer strong characters than one which has these qualities.—*N. Margineanu* (Cluj, Rumania).

5792. **Radulescu-Motru, C. Corp si caracter.** (Physique and character.) *J. Psihoteh.*, 1937, **1**, 93–98.—A general discussion of the relation between body and character and especially of the influence of body upon character. There is an organic relation between physique and character, and in virtue of this relation body constitution might influence psychological constitution. It seems to be the duty of our time to organize this influence rationally in order to reach a wholesome personality.—*N. Margineanu* (Cluj, Rumania).

5793. **Rohracher, H. Kleine Einführung in die Charakterkunde.** [3rd ed.] (Brief introduction to characterology.) Leipzig, Berlin: Teubner, 1937. Pp. 168. M. 2.80.—*R. R. Willoughby* (Brown).

5794. **Schachtel, E., & Hartoch, A. The curve of reactions in the Rorschach test: a contribution to the theory and practice of Rorschach's psychodiagnostic ink blot test.** *Amer. J. Orthopsychiat.*, 1937, **7**, 320–348.—These writers stress the necessity for psychologists not only to give an inventory of modes of reaction, but also to describe and to explain the typical sequences in which the ingredients of this inventory become effective. For this purpose they present the concept of "psychic phases" (characteristic modes of dealing with objects and persons). Just as Rorschach assumed that characteristic tendencies revealed through the use of test-plates and represented by his test formulas operate in the everyday life of the individual in the same ratio in which they appear in the test formulas, these writers assume that the sequences of these tendencies as they appear in the subject's responses to the test-plates also bear a close relationship to the sequences of responses characteristic of the individual's everyday life. From these assumptions they have worked out the "curve of reactions" to the Rorschach plates. The method consists in defining psychic phases in the subject's Rorschach performance. Each of these phases yields a percentage of each of the Rorschach elements (as related to the sum of responses during the whole test). Changes in the proportion of each element in successive phases are then determined and interpreted in Rorschach fashion.—*J. McV. Hunt* (Brown).

5795. **Shaw, C. G. The road to happiness.** New York: Hillman-Curl, 1937. Pp. 312. $2.50.—An analysis of happiness and the possibility of achieving it and retaining it in this machine age.—*R. R. Willoughby* (Brown).

5796. **Shen, E. Differences between Chinese and American reactions to the Bernreuter personality inventory.** *J. soc. Psychol.*, 1936, **7**, 471–474.—The author finds the Chinese percentiles have higher B1-N and B3-I scores, and lower B2-S and B4-D scores not only when boys and girls of the two countries are respectively compared, but even when Chinese boys are compared with American girls. A discussion of the interpretation of these differences is given.—*E. D. Hunt* (Brown).

5797. **Shlaudeman, K. W. A new scale for scoring the Bernreuter personality inventory.** *J. soc. Psychol.*, 1936, **7**, 483–486.—The author describes the idiosyncrasy scale and discusses its objectivity and reliability in experimental work.—*E. D. Hunt* (Brown).

5798. **Sletto, R. F. Construction of personality scales by the criterion of internal consistency.** Hanover, N. H.: Sociological Press, 1937. Pp. 92. $1.75.—The legitimacy of the assumptions underlying the use of the criterion of internal consistency in isolating psychological traits inductively is examined. On the basis of the analysis of the results obtained on six scales, it is concluded that an N of at least 400 is desirable, and since the item discriminative value varies from group to group, dissimilar groups must be used. Measures of item discriminative value do not yield uniform constancy in ranking. Items may yield statistically significant values in more than one scale even though the scales containing the item are not highly correlated. Statistically discriminative values for all items in a scale do not assure that all items are measuring a single attitude. The author includes a discussion of the nature of attitudes and of internal consistency.—*E. T. Raney* (Brown).

5799. **Soderquist, H. O. Validity of the measurement of social traits of high school pupils by the method of rating by associates.** *J. educ. Res.*, 1937, **31**, 29–44.—54 groups each ranging in number from 15 to 62 individuals, representing all high-school classes, were used as subjects. Each individual was ranked only by members of the same sex with regard to "sociability," which was defined as "having many friends among his schoolmates and liking to mingle with them in a social way." A statistical treatment

of the results indicates that there was high reliability of judgment, if this is interpreted as consistency or stability of ratings. There was a high correlation between teachers' ratings and the mutual ratings of the pupils. The author believes that "as a general rule rating by associates is to be preferred to ratings by teachers."—*S. W. Fernberger* (Pennsylvania).

5800. **Spearman, C. German science of character. Part II. Approach from typology.** *Character & Pers.*, 1937, 6, 36–49.—The concept "type" is first discussed, then the various writings on typology are discussed according to the following groupings of writers: (1) philosophic and literary writers, including Dilthey, Spranger, and Klages; (2) Kretschmer; (3) Jaensch; (4) Kroh, with his collaborators Pfahler, Lutz, Dambach, Vollmer, Bayer, Lamparter and Dieter; and (5) a miscellaneous group including Mall, Wartegg, Hellpach, Zeddies, Firgau and Helwig. In conclusion the author states that much of what these writers say about types may be true, but their theories are still unproved. Furthermore, their statistical handling of data lags far behind Anglo-Saxon methods. Nevertheless, in the wealth of suggestion and genuine insight, "the Germans manifest a most edifying contrast to the meaningless and arid tables . . . of their rivals. . . . The two groups should join hands." Numerous references are cited.—*M. O. Wilson* (Oklahoma).

5801. **Stagner, R. Psychology of personality.** New York: McGraw-Hill, 1937. Pp. 465. $3.50.—This textbook, written as a contribution to the study of the normal everyday personality and to construct a scientific approach to personality and the development of traits, is divided into 4 sections which contain respectively 3, 9, 3 and 8 chapters, the majority with a summary and a list of suggested readings appended. The introductory section presents the general problem and the analytic and total personality methodologies for study. Part II, Descriptive Psychology of Personality, deals with the nature of the personality structure, the basic reactions of feelings and emotions, personality acquisition in simpler and complex forms of learning, implicit traits, character attitudes and values, the overt level of personality structure, and the type theories of personality. Section III, Dynamics of Personality, discusses appetites and aversions, the dynamic theories of Freud, Adler and Lewin, and the cultural interpretation of motivation. Section IV, Determinants of Personality, covers the biological determinants, social determinants as found in the family, social and educational activities, the effect of economic conditions, personality in patterns of culture (chapter by A. H. Maslow), and personality and social values. An extensive bibliography is given, followed by author and subject indexes.—*M. H. Erickson* (Eloise Hospital).

5802. **Stefanescu-Goanga, F., Rosca, A., & Cupcea, S. Instabilitatea emotiva.** (Emotional instability.) *Stud. Cercet. Psihol.*, 1936, No. 20. Pp. 200. Lei: 100.—A contribution to the psychology of personality. (1) A survey of various methods to be used in the study of personality: observation, rating, questionnaire, interview, tests, free association, psychophysiological and psychoanalytical methods, study of social environment. (2) The Woodworth psychoneurotic inventory is adapted. The adapted questionnaire has 148 items, classified in 8 groups designed to diagnose 8 personality types: psychasthenic, neurasthenic, hyperemotional, hysterical, morally insane, schizophrenic, paranoiac and cyclothymic. The questionnaire has been applied to 895 men and 635 women, varying from 10 to 50 years. An attempt is made to construct a scale for psychoneuroticism in analogy with the Binet scale for intelligence. The units of score are deciles. The age differences are rather small and irregular. The reliability coefficient is .86 by the method of repetition and .89 by the split-half method. It refers, however, to a group of 84 subjects 18–35 years old and 114 subjects 20–35 years old. A test of the goodness of fit is attempted, using 134 subjects. The obtained curve does not deviate much from the theoretical curve. (3) A discussion of the above findings in relation to sex and age. (4) Social consequences of psychoneuroticism. (5) Mental prophylaxis.—*N. Margineanu* (Cluj, Rumania).

5803. **Tanaka, H. Kosei no kenkyû.** (Studies on individuality.) Tokyo: Tôen-Syobô, 1936. Pp. 347. Yen 3,00.—The author studies human individuality from the following three viewpoints: (1) character, (2) intelligence, (3) body.—*T. Chiba* (Sendai).

5804. **Wang, C. K. A. [The measurement of attitude.]** Shanghai: Chung Hwa Book Co., 1935. Pp. 102. $0.35 mex.—The book has an introductory preface by L. L. Thurstone.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5805. **Weimer, J. Erbcharakterologische Untersuchung einer Familie mit verhaltens- und experimentalpsychologischen Methoden.** (A heredity study of one family by the methods of behavioristic and experimental psychology.) *Z. menschl. Vererb.- u. Konst.-Lehre*, 1936, 19, 600–645.—A family consisting of father, mother, one son and four daughters ranging in age from 25 to 13 years was studied on the basis of data supplied by the adult members about themselves; reports on each member by his relatives; oral or written estimates by third parties, such as teachers, staff physician, etc.; and the author's personal observations during a half year. Tests used, dealing with the factors of mental tempo, attention and perseveration, were the Rorschach (ink-blot) test and word-series tests (requiring a story to be constructed on the basis of a series of unrelated words). Among the findings were: Every child embodies traits derived both from his father and from his mother. The dominant function, derived either from the father or the mother, is the decisive factor in the character of the child. This latter relationship is most readily observable in the basic function of attention-perseveration. This is also relatively true of the other basic functions, although somewhat more

difficult of demonstration, since these do not lend themselves so readily to experiments. Behavioristic data included sensibility of feeling and forms of vital activity.—*S. W. Downs* (Berkeley, Calif.).

5806. **Young, P. T. Laughing and weeping, cheerfulness and depression: a study of moods among college students.** *J. soc. Psychol.*, 1937, 8, 311–334.—A questionnaire-rating scale given to 184 students showed that weeping occurs on the average only once in 20 to 21 days; laughing occurs so frequently that the subject can only guess as to its frequency. 80–90% of the records place the causes of weeping within the social environment, while 98% referred the causes of laughing to this factor. College students rate their prevailing mood as cheerful 4.6 times as frequently as depressed; the correlation between frequency of laughing and level of cheerfulness was .28. Affective reaction scores which indicate the readiness with which a subject is pleased by odors do not correlate positively with the subjective estimates of average cheerfulness ($r = .02$). It is assumed that affective reactions utilize thalamic coördinating centers and that moods are aroused through the cerebrum.—*E. D. Hunt* (Brown).

[See also abstracts 5435, 5511, 5514, 5652, 5702, 5713, 5761, 5827, 5851, 5873, 5911, 5936, 5958, 5967.]

GENERAL SOCIAL PROCESSES

(incl. Esthetics)

5807. **Aizawa, M. Ongaku no sinrigaku.** (Psychology of music.) Tokyo: Tôen-Syobô, 1935. Pp. 249. Yen 2,50.—The book is an attempt to systematize the psychological study of music.—*T. Chiba* (Sendai).

5808. **Arsenian, S. Bilingualism and mental development.** *Teach. Coll. Contr. Educ.*, 1937, No. 712. Pp. vi + 164. $2.10.—To 1152 United States-born Italian and 1196 United States-born Jewish children, aged 9 to 14, were given the Hoffman bilingual schedule, an adaptation of the Sears score card (socio-economic status), the Pintner nonlanguage intelligence test, and the Spearman visual perception test, Part I (in non-language form). The interrelations of the scores on these measures are given and discussed. Bilingualism and socio-economic status correlated − .20. The Jewish group was generally superior to the Italian. Intelligence and socio-economic status correlated below .20. Practically no relationship was found between bilingualism and intelligence. Bilingualism does not seem to have influenced—favorably or unfavorably—the mental development of the children here studied. A review of the literature on the subject constitutes one chapter. The bibliography lists 171 titles.—*J. M. Stalnaker* (Princeton).

5809. **Baker, K. H. Radio listening and socio-economic status.** *Psychol. Rec.*, 1937, 1, 99–144.—A study of 10,000 questionnaires distributed throughout the state of Minnesota showed that radio listening habits are correlated with socio-economic status and that children prefer emotionally charged or exciting programs regardless of whether these are designed for adults or children. The average amount of time the radio is used daily is greater in homes of lower socio-economic status as well as in homes where the larger number of children are under 16 years of age.—*P.S. de Q. Cabot* (Simmons).

5810. **Becker, W. Der Kampf gegen das Denunziantentum.** (The fight against denunciation.) *Krim. Mh.*, 1937, 11, 151–154.—Denunciators are a peculiarly mean type of criminals, utterly unworthy of National Socialism, reviled by the Leader, and a great danger to a new political and economic order. They include those who accuse public officials, informers who accuse others in order to conceal their own misdeeds; those who "frame" crimes; and the paranoid type. Anonymous accusations and those made some time after the affair are likely to be motivated by revenge. Denunciation for political crimes and against the state has reached unsuspected proportions. Punishable denunciation of the state extends not only to the press, all published or written material, and public utterances, but also to casual conversation, or simply a critical subjective attitude. Charges may be lodged not only with the civil and military authorities, but also at party meeting-places.—*M. E. Morse* (Baltimore).

5811. **Blanton, S. Helping the speech handicapped school student.** *J. Speech Disorders*, 1936, 1, 97–100.—*R. R. Willoughby* (Brown).

5812. **Brudariu, A. Monografia comunei Belinti.** (A monograph of the village of Belinti.) *Sociol. Roman.*, 1936, 1, No. 9, 37–55.—A social-psychological and sociological monograph of a Rumanian village. Much place is given to the social attitudes toward religion, God, family, state, politics, sex, etc.—*N. Margineanu* (Cluj, Rumania).

5813. **Buswell, G. T. How adults read.** *Suppl. educ. Monogr.*, 1937, No. 45. Pp. 158.—The basic motive underlying the investigation was "the discovery of techniques and methods by which the reading ability of adults may be improved," recognizing the significance of this ability for effectiveness of adult education and enlightened citizenship. An analysis of adult reading ability was made for 1000 subjects, most of whom had been out of school more than 10 years, and a series of remedial experiments was tried. Data collected concerning the subjects included a visual examination covering 12 factors, the Otis test of mental ability, a specially constructed reading test, photographic records of eye movements, voice recording and oscillograph records in oral reading, and supplementary information from interviews. The showing of various elements within the group of subjects on these tests is summarized, compared, analyzed and illustrated. The experimental techniques used in training 3 adult groups and checked by 2 junior high school groups showed improvement in span of recognition, reduction of regressive movements and length of duration of fixation pauses, and increased comprehension.

Negro and white groups with differences in educational opportunity are compared. Reproductions of the reading test are included in the appendix.—*D. Bailey* (Mt. Holyoke).

5814. **Chen, W. K. C. Retention of the effect of oral propaganda.** *J. soc. Psychol.*, 1936, **7**, 479–483.—Three tests of the attitudes of American college students toward the Manchurian problem were used. The first measured the original attitude, the second the effect of propaganda, and the third the retention of the effect of propaganda. They showed that with a lapse of about 5½ months after a 10–15 minute propaganda talk, the international attitudes of college students tend to swing back to their original positions; the effect of propaganda upon a few statements may be retained after this period. Those who apparently react against propaganda show greater negative after-effect of propaganda after the 5½-month interval.—*E. D. Hunt* (Brown).

5815. **Creak, M. Reading difficulties in children.** *Arch. Dis. Child.*, 1936, **11**, 143–156.—*D. J. Ingle* (Mayo Foundation).

5816. **Cresin, R. Ancheta sociologica asupra vietii studentesti.** (Sociological research into students' life.) *Arhiva pentru Sti. Ref. soc.*, 1936, **14**, 633–783.—A sociological and social-psychological study of the life of students in philosophy, psychology, sociology, history, languages, ethnography and geography. Their attitude toward studies, way of attending lectures, and preparing their own work are considered, also their social, political and religious attitudes. Other statistical data in regard to economic situation, vocational guidance, choice of profession, etc., are cited.—*N. Margineanu* (Cluj, Rumania).

5817. **Cresin, R. Monografia comunei Sant.** (A monograph of the town of Sant.) *Sociol. Roman.*, 1936, **1**, No. 9, 56–57.—A social-psychological study of the rural family in Rumania.—*N. Margineanu* (Cluj, Rumania).

5818. **Cristescu, S. Frecventa formulei magice in satul Cornova.** (The frequency of magic formulas in the town of Cornova.) *Sociol. Roman.*, 1936, **1**, No. 3, 11–18.—A social-psychological description and analysis of various magic practices in a Rumanian town. There are about 87 formulas for healing about 31 diseases. Description, classification and frequency of these formulas, followed by an explanatory attempt, are given.—*N. Margineanu* (Cluj, Rumania).

5819. **Cristescu, S. Chestionarul pentru studiul credintelor, practicelor si agenţilor magici in satul romanesc.** (A questionnaire for studying magical beliefs, practices and agents in a Rumanian town.) *Sociol. Roman.*, 1936, **1**, No. 3, 36–38.—A questionnaire elaborated by the Rumanian Social Institute designed for the study of magic. It has 34 items, grouped in 6 classes, and aims to diagnose all the kinds of magic in use.—*N. Margineanu* (Cluj, Rumania).

5820. **Déonna, W. L'esprit classique et l'esprit primitif dans l'art antique.** (The classical spirit and the primitive spirit in ancient art.) *J. Psychol. norm. path.*, 1937, **34**, 49–112.—This article is part of a larger study showing the two concepts of art, classical and primitive, which were in opposition in antiquity and which have been perpetuated throughout the centuries. The author discusses: (1) the choice of themes—geometric, flora, fauna, the human form; (2) the worth of man in nature; (3) the integrity of the human body; (4) the ornamental principle; (5) the geometrical and the natural transcription, regularity and irregularity, repetition and variety; (6) surface and depth vision; (7) intellectual and visual realism; (8) abstractions and imitation; (9) observation of reality; (10) clearness, limitation, truth, humanity, generality.—*R. E. Perl* (New York City).

5821. **Dima, A. Realitatile sociale ale artei.** (Social realities and art.) *Arhiva pentru Sti. Reforma soc.*, 1936, **14**, 760–782.—A sociological and social-psychological study of art. Artistic creation depends upon personality and the social environment and culture in which personality develops. An analysis of cases.—*N. Margineanu* (Cluj, Rumania).

5822. **Driscoll, J. A. Frequency study of speech errors in Lackawanna County, Pennsylvania.** *Bucknell J. Educ.*, 1937, **11**, 8–12.—The author describes the speech errors in a survey made in Lackawanna County, Pennsylvania, and makes suggestions as to the remedy.—(Courtesy *J. educ. Res.*)

5823. **Du Bois, C. Some psychological objectives and techniques in ethnography.** *J. soc. Psychol.*, 1937, **8**, 285–300.—The author suggests some of the reasons for growing interest in psychology within the field of anthropology. A discussion of the techniques used in ethnographical investigations is given, revealing that the "good" and the "bad" have all been used with some modicum of success. The author concludes that "where interests in psychology predominate, new and more sensitive procedures will have to be considered."—*E. D. Hunt* (Brown).

5824. **Eagleson, O. W. Comparative studies of white and negro subjects in learning to discriminate visual magnitude.** *J. Psychol.*, 1937, **4**, 167–197.—To avoid the cultural complications resulting from the use of complex tasks, and in order to obtain a measure of capacity to learn, both white and negro subjects (3 groups: college, high school, and CCC camp) were made to bisect a magnitude of 305 mm. repeatedly for 5 sittings, a total of 250 times. The subjects performed with the knowledge that their race was being compared with members of the other race to provide motivation. Comparisons were made of the average error, the constant error, and the adjustmental error. The results show that the average errors (daily) of both racial groups decreased with training. White subjects made lower average errors than negroes in the discriminations, but the reliability of the difference between the two groups decreased with training. Logarithmic curves that were fitted to the learning curves as a convenient empirical description of the data indicated a con-

vergence of the learning curves of the two racial groups in each of the comparisons. These results are interpreted to mean that the white subjects had had more training in this kind of performance at the beginning of the study. On the basis of the average error, the negroes learned faster than the whites, i.e., their increments of gain from sitting to sitting were larger than the increments for the whites. The constant errors of both racial groups tended to the right. The adjustmental errors of both groups tended to be over the center in most cases. There was no correlation between visual acuity and average error or between eyedness and direction of the constant error.—*J. McV. Hunt* (Brown).

5825. **Eijkman, L. P. The interior larynx in song and speech.** *Arch. ges. Phonet.*, 1937, **1**, Part I, 76–89.—The larynx was examined with Russel's glottiscope. In voiceless consonants pronounced by themselves the glottis is narrower than in breathing. When a vowel follows the glottis is slightly wider than for a single vowel. Voiced consonants have the same glottis position as that following a vowel. In a whisper the processus vocales overlap slightly. With transillumination a consonant shows darker ligaments than a vowel. There are narrowing and widening movements of the vocal lips in fricatives. Color and breadth of vocal ligaments vary when vowels are sung and whispered. The epiglottis may be rounded or not rounded, narrow or wide. In speech the epiglottis is lower than in song, the arytenoids tilted more forward, the larynx more compact and less tense, the glottis often wider and shorter, and the vocal ligaments darker, narrower and more convex.—*P. L. Krieger* (Leipzig/Munich).

5826. **Essen, E. v. Untersuchungen über die Muskelbewegungen im Rachen- und Mundraume bei Gaumenspalten mit Hilfe der Lichtbildmessung.** (Investigations on muscular movements in the throat and mouth in cleft palate, with the help of photographic measurement.) *Arch. ges. Phonet.*, 1937, **1**, Part II, 165.—"In a case of cleft palate compensatory movements are observed which have the purpose of rendering the disturbed speech as normal as possible. Some of these compensatory movements are expedient while others are not. The latter occur either as spontaneous movements or through co-innervation or misdirection of nervous impulses. Different individuals employ various compensatory movements, which explains the difference between speech performances and the reaction to speech therapeutic measures where clinical pictures are similar, and inferior speech performance and sluggish reaction to speech treatment in cases where clinical findings are better. The foundation for the treatment of voice and speech is laid in the knowledge of expedient and inexpedient phonation movements."—*P. L. Krieger* (Leipzig/Munich).

5827. **Fenlason, A. F., & Ratner, J. Conflict in social case work: an exploration.** *Soc. Work Technique*, 1937, **2**, 208–213.—An exploration into the wider implications of the term "conflict" and its social case work symbolizations allows the following conclusions: (1) "Non-cooperation" is relative, in that it refers to a degree of opposition. (2) Conflict cannot be considered to be due entirely or in large part to factors operating in the client's personality; it is an interaction involving both client and worker. (3) Conflict is associated in all the literature with the cultural and social manifestations of the individual. (4) It is necessary to probe deeply into the problems of adjustment and conflict in "un-cooperative" situations, so that conflict in social case work may be reduced to the minimum consistent with sound theory and practice.—*M. Keller* (Brown).

5828. **Fettweis, E. Über die Entwicklung des räumlichen Vorstellungsvermögens bei Volkern nichteuropider Rasse und in der europäischen Vorzeit.** (On the development of spatial ideation in peoples of non-European races and in European antiquity.) *Scientia, Bologna*, 1937, **62**, 13–21.—The author gives a number of examples, drawn from the life of primitive peoples, of games, engineering practices, etc., illustrating relatively remarkable powers of numerical and geometrical conceptualization and imagery. Despite the conclusion that modern European spatial thought is far advanced over that of primitive peoples, this difference is not to be explained alone by racial differences; for the early examples of spatial thinking in Europe are themselves the beginning of a development from primitive to sophisticated, despite the continuity of races.—*D. W. Chapman* (Recorder's Court, Detroit).

5829. **Focsa, I. Contributii la cercetarea mentalitatii satului Moiseni.** (Contributions toward the knowledge of the group mind of the town of Moiseni.) *Sociol. Roman.*, 1936, **1**, 44–48.—A social-psychological analysis of the group mind of a Rumanian town, based mainly on case studies and interviews. Religion seems to be the core of this town's mentality. Religious arguments are rather mystical and have little to do with reason. There seems to be a definite verification of Durkheim's thesis of collective representations and of Lèvy-Bruhl's affective category of the supernatural.—*N. Margineanu* (Cluj, Rumania).

5830. **Focsa, G. Aspectele spiritualitatii satesti.** (Aspects of village spirituality.) *Sociol. Roman.*, 1937, **2**, 197–211.—I. Value of village civilization and spirituality. (a) The Rumanian village is the basis of real Rumanian civilization, in opposition to the town, which is the instrument of international civilization. (b) The Rumanian village has a very definite mind, which is not always true of Rumanian towns. (c) Material civilization depends upon and reflects the village mind. (d) All psychological activities of the village are closely related and interpenetrated. One can isolate, however, a practical and a theoretical mind. (e) Methodological considerations regarding the study of the above facts. II. The thought of village people. A social-psychological analysis of thinking processes as they occur in a village. III. Magic. Mystical character of thinking. IV. Religion. Conception of God, world, paradise, devils, sins. Religion is Christian.

Old pagan beliefs from Romans and Thracians are still preserved. IV. The practical world. Conceptions of economic and commercial life. V. The coexistence and correlation of these various categories of the village mind.—*N. Margineanu* (Cluj, Rumania).

5831. **Frankel, L. R. The theory of regression.** *J. Speech Disorders*, 1936, **1**, 107–112.—*R. R. Willoughby* (Brown).

5832. **Giurca, A. Limbajul si procesele de cunoaştere.** (Language and its relation to processes of knowledge.) *Rev. Fil., Bucuresti*, 1937, **22**, 199–209.—After an attempt at language definition its relation to the processes of knowledge is stated. Language is a system of signs derived from the need for communication and understanding. This need becomes more intensive as time passes and culture develops. Language has an important role in perception and is largely determined by memory and association. It is identified especially with thinking, though the latter remains different from it. It also facilitates our adaptation to the environment, especially to the social one. The language as well as the cognitive processes are instruments in the hands of our needs, tendencies, impulses, and instincts.—*N. Margineanu* (Cluj, Rumania).

5833. **Gusti, D. Muzeul satului.** (A museum of Rumanian towns.) *Sociol. Roman.*, 1936, **1**, No. 5, 1–7.—A description of the nature and the scope of the museum of Rumanian towns organized by the Rumanian Social Institute. Much attention is given to the social-psychological aspect of the town. The museum collects all Rumanian folkways, magic, social and spiritual attitudes, etc. It aims to give a real picture of the town's mentality.—*N. Margineanu* (Cluj, Rumania).

5834. **Gusti, D. Temeiurile teoretice ale cercetarilor monografice.** (Theoretical fundamentals of monographic researches.) *Sociol. Roman.*, 1936, **1**, No. 7, 1–8.—A brief résumé of the theoretical principles upon which the Rumanian school of social monographs headed by Gusti is based. The monographs give much recognition to the psychological and social-psychological aspects of towns and villages.—*N. Margineanu* (Cluj, Rumania).

5835. **Gusti, D. Stiinta natiunii.** (A science of the nation.) *Sociol. Roman.*, 1937, **2**, No. 2–3, 49–59.—The main lines and principles of the Rumanian program of social research concerning the Rumanian village are outlined. The program is patronized and subsidized by royal foundations and carried out by Gusti with a very large staff. Much attention is given to the psychological aspect of the village and especially to folkways.—*N. Margineanu* (Cluj, Rumania).

5836. **Harrisson, T. H. Savage civilization.** New York: Knopf, 1937. Pp. 461. $4.00.—A study of the primitive culture of the New Hebrides, a group of islands in the western Pacific where the author spent two and a half years. The first year he served as biologist with the Oxford University expedition; the remaining time he spent living with the natives of inland Malekula, one of the most primitive and savage regions of the archipelago.—*R. R. Willoughby* (Brown).

5837. **Havermans, F. M. Über die Erklärungen der Inzestscheu bei Primitiven.** (The explanations of incest avoidance in primitives.) *Psychiat. Neurol. Bl., Amst.*, 1935, No. 3. Pp. 10.—*R. R. Willoughby* (Brown).

5838. **Hawk, S. S. Speech defects in handicapped children.** *J. Speech Disorders*, 1936, **1**, 101–106.—*R. R. Willoughby* (Brown).

5839. **Herseni, T. Ceata feciorilor din Dragus.** (The young men's association of the town of Dragus.) *Sociol. Roman.*, 1936, **1**, No. 12, 1–32.—A social-psychological study of a young men's association in a Rumanian village. I. The organization of the association: (1) choice of a leader, (2) function of the leader. II. The function of the association at Christmas: Christmas songs, popular play dramatizing Christ's birth, dancing. III. The function of the association during other holidays: dancing, initiation to the dance, social entertainments. IV. The program of the association during week days. V. Conclusions. Photographic and musical records are given.—*N. Margineanu* (Cluj, Rumania).

5840. **Herseni, T. Vointa sociala.** (Social will.) *Sociol. Roman.*, 1937, **2**, 145–149.—A critical review of various theories concerning social will. A social group is an assembly of individuals with a common social will. Social will seems to be the basis of society.—*N. Margineanu* (Cluj, Rumania).

5841. **Hopkins, P. A critical survey of the psychologies of religion.** *Character & Pers.*, 1937, **6**, 16–35.—Recent writings on the psychology of religion are divided according to six broad schools of thought and are critically evaluated. The classifications are the rational-naturalistic, economic-sociological, anthropological, classic-psychological, libidinal, and eclectic. The author concludes: "despite the great number of works which have appeared on the subject, the treatment of religious phenomena by trained psychologists is a field which has been no more than fairly opened up."—*M. O. Wilson* (Oklahoma).

5842. **Hunger, H. Dr. Joseph Winthuis und die Religionspsychologie.** (Dr. Joseph Winthuis and religious psychology.) *Z. ReligPsychol.*, 1937, **10**, 65–89.—Winthuis maintains that both the theory of androgynism of the deity in primitive society and W. Schmidt's primitive monotheism are based on the premises of religious psychology. This theory, however, is incorrect, first because, as Beth in his *Religion and Magic* has pointed out, it is unnecessary to identify totem ancestors with the high god; and second because Winthuis imputes his own Christian creed to primitive peoples. Androgynism of the high god and totem ancestors is only one of the possible conceptions of the deity, and the general interpretation of myths as sexual creation is similarly biased. Nevertheless, Winthuis' attempt to explore the sexuality of primitives, although inadequate, is

still important for the understanding of the problem. —*P. L. Krieger* (Munich).

5843. **Imbrescu, D. Craciunul in colinda.** (Christmas in songs.) *Sociol. Roman.*, 1936, **1**, No. 12, 39–47.—A social-psychological analysis of various songs in use at Christmas throughout Rumania. The majority of songs have a religious character, telling about Christ's birth. Some of them dramatize the birth. Besides such religious songs there are some in which the religious character is not the important feature. In connection with the religious thesis some very fantastic stories are developed.—*N. Margineanu* (Cluj, Rumania).

5844. **Johnson, G. B. A further study of race differences in physical skill as measured by the Johnson skill tests.** *J. gen. Psychol.*, 1937, **17**, 149–151.—"The test activities include a series of leaps, hops, and revolutions on a transverse axis." Scores from groups of several hundred white, colored and Indian males show enough overlapping to indicate racial equality in this trait.—*H. Schlosberg* (Brown).

5845. **Krämer, R. Rassische Untersuchungen an den "Zigeuner"-Kolonien Lause und Altengraben bei Berleburg Westfalen.** (Racial investigations among the gypsy colonies Lause and Altengraben in Berleburg, Westphallia.) *Arch. Rass.- u. GesBiol.*, 1937, **31**, 33–56.—Beside racial relations, the author investigates particularly the mental tendency of the gypsies, among the north German peasants, toward roaming.—*P. L. Krieger* (Leipzig).

5846. **Kurikawa, H. Mukasibanasi to dôwa no sinri.** (Psychology of folk-tales and nursery tales.) Tokyo: Tôen-Syobô, 1936. Pp. 253. Yen 2,50.—Part 1. The folk-tales. Part 2. Childhood and the folk-tales. Part 3. The nursery tales.—*T. Chiba* (Sendai).

5847. **Lehner, S. Zur Psychologie des Melanesierstammes der Bukawac.** (The psychology of the Melanesian tribe of the Bukawacs.) *Arch. Anthrop., Braunschw.*, 1937, **24**, 42–63.—Like all primitive peoples, the Bukawacs are easily influenced and stimulated mentally—but only superficially. Their devotion to spirits and dependence on them is the reason why really deep and permanent emotions are extremely rare. This is discussed in connection with the peculiarities of their observations, understanding, memory, and weakness of will, as well as their speech and customs.—*P. L. Krieger* (Leipzig).

5848. **Lepley, W. M. Competitive behavior in the albino rat.** *J. exp. Psychol.*, 1937, **21**, 194–201.—The animals in this experiment were run in a straight 30-foot alley with a food goal. Timing was semi-automatic. Successive procedures were as follows: (1) Each rat was given 20 manually guided, untimed, rewarded runs in isolation. (2) Each rat was given 80 unguided, untimed, rewarded runs in isolation. (3) Each rat was given 40 unguided, timed, rewarded runs in isolation. (4) On the basis of mean scores obtained in the third procedure, the rats were matched and paired within each sex group. These pairs were then given 40 unguided, timed, rewarded runs in pairs. (5) These pairs were then given 160 additional unguided, timed runs. In these 160 runs only the rat first attaining the goal box was rewarded. The results from the third procedure show that the group had been trained to a speed-of-locomotion plateau. Data from the fourth procedure show that interstimulation resulting from running in pairs produced an increase in speed of locomotion. Data from the fifth procedure show no evidence of a discrimination between the pre-goal winning situation and the pre-goal losing situation. It is concluded that if competitive behavior has been demonstrated it has not been identified.—*H. W. Karn* (Pittsburgh).

5849. **Mach, L. Lese- und Schreibschwäche bei normalbegabten Kindern.** (Reading and writing deficiencies in normal children.) *Z. Kinderforsch.*, 1937, **46**, 113–197.—A study of seven children of normal intelligence with serious deficiencies in reading and writing. The usual accompaniments of letter and word reversal, frequent and long fixation points, many regressive eye movements, defective articulation, nervous instability, etc., were noted. These children appeared also to have very poor memory for complicated geometrical figures and for sounds. Individual cases varied considerably, however, in these and other respects. Poor home conditions and excessive punishment for school failures were the rule. One child is said to have shown considerable improvement in reading after treatment for congenital lues.—*F. L. Goodenough* (Minnesota).

5850. **Maesse, H. Ein Beitrag zue Frage der Gebärdeeinteilung.** (A contribution to the question of classification of gestures.) *Dtsch. Sonderschule*, 1937, **4**, 336–344.—As gestures are to be considered all bodily movements which have a speech function, logically accompany talk, and are important for the efficiency of what is said. Since the terminology relating to German deaf-mute speech is often variable, the following activities are covered by gestures: expressive movement; action; gesticulation (mere accompaniment); facial play; mimicry (artificial); and pantomime. Correspondingly, the usual classification is regarded from a new viewpoint: gestures with relation to their content (indicative and suggestive); gestures without relation to their content (manifold forms of expression); gestures related to the spoken word. In relation to audible speech, gestures fulfil the functions of emphasis, explanation, addition, and supplement.—*P. L. Krieger* (Leipzig).

5851. **Maslow, A. H. Dominance feeling, behavior, and status.** *Psychol. Rev.*, 1937, **44**, 404–429.—A presentation of the definition and concepts involved in a systematic theory of dominance which has developed out of a series of experimental studies on humans and infra-human primates. Dominance feeling and dominance status are distinct, but causally related to a certain degree, since the feeling reflects the status. Dominance feeling can be studied by observing dominance behavior. Yet,

due to the principle of compensation, there may be a wide discrepancy between dominance feeling and dominance behavior. In some cultures women are expected to conceal dominance feeling in relation to men by compensatory "lady-like" behavior, and conversely persons with feelings of weakness compensate by dominant behavior. Feelings of inferiority or superiority are distinct from factual inferiority and superiority, since real superiority may be accompanied by inferiority feelings. Also craving for dominance is distinct from feelings of inferiority or superiority. Other studies, such as factor analyses, show dominance to be one of the few fundamental traits of personality. This trait varies considerably with different cultures and levels, but there are certain behavior patterns which universally indicate dominance as expressions of superior strength.—*A. G. Bills* (Cincinnati).

5852. **Meek, C. K. Law and authority in a Nigerian tribe; a study in indirect rule.** New York: Oxford Univ. Press, 1937. Pp. 388. $6.00.—*R. R. Willoughby* (Brown).

5853. **Mosley, P. E. Lumea psihologica a unui "American" din Sant.** (Psychological world of an American Rumanian.) *Sociol. Roman.*, 1936, **1**, No. 9, 75–78.—A social-psychological study of a Rumanian peasant who came back to his native village after he lived 16 years in the U. S. A. The case study method devised by Thomas and Znaniecki is used.—*N. Margineanu* (Cluj, Rumania).

5854. **Neumayer, P. Die Kraft der Zunge.** (The strength of the tongue.) *Arch. ges. Phonet.*, 1937, **1**, Part II, 172.—"A new apparatus for measuring the strength of the tongue is described. The force exerted by the tongue is on an average between 3 and 6 kg. The pressure exerted is relatively small, amounting to ⅓–⅔ atmospheres. These tests were made on human beings between the ages of 17 and 60 years. In the younger and older individuals the tongue had less strength. The strength of the tongue increased 10–20% when a vomiting reflex was produced."—*P. L. Krieger* (Leipzig/Munich).

5855. **Patrick, C. Creative thought in artists.** *J. Psychol.*, 1937, **4**, 35–73.—The process of creative thought in sketching pictures was studied by having artists sketch pictures while expressing their thoughts aloud, and by having them answer questions concerning their usual practices. 50 professional artists and 50 unpracticed sketchers served as subjects. The reports revealed the same four stages of creative thought, namely, preparation, incubation, illumination, and verification, already revealed in a study of poetic creation. The course of thought is similar as between artists and non-artists. Non-artists draw more objects and more different kinds of objects than do artists. Artists spend approximately the same time as poets on unorganized and organized thought.—*J. McV. Hunt* (Brown).

5856. **Pflugk, B. v. Gestörte Familiengemeinschaft. Untersuchungen über Kinder aus geschiedenen Ehen.** (Disturbed family groups. Studies on children from disrupted marriages.) Zeulenroda: Sporn, 1935. Pp. 117.—*R. R. Willoughby* (Brown).

5857. **Pichon, E. La linguistique en France. Problèmes et méthodes.** (Linguistics in France. Problems and methods.) *J. Psychol. norm. path.*, 1937, **34**, 25–49.—The author discusses certain problems in linguistics in order to show that the science of linguistics has a special interest for psychologists both for its content and for its method. He discusses and rejects absolutely the theory of the arbitrary character of linguistic signs. The distinction between synchronic and diachronic linguistics is considered in detail. The article concludes with the statement that linguistics is a fitting discipline for the application of scientific thought.—*R. E. Perl* (New York City).

5858. **Pohl, U. Experimentelle Untersuchung zur Typologie graphologischer Beurteilung.** (Experimental study of typology in graphological judgments.) *Untersuch. Psychol. Phil.*, 1936, **11**, H. 3. Pp. 46.—Ability to judge handwriting depends on the type of the interpreter. Cyclothymics or extraverts are more suited to it than schizothymics or introverts, the first type because of their emotional attitude toward the script and intuitive grasp of similarities due to their disposition toward fusion. The hyperextravert fails, however, because of his slight perseveration and strong centrifugal tendency. Among introverts, the trained methodical person does relatively well because of his systematic procedure and search for objective signs, while the untrained, bound down by perseveration, succeeds only with difficulty. The extravert who after long training understands how to combine the advantages of both methods of interpretation, makes the best graphologist.—*P. L. Krieger* (Leipzig).

5859. **Pratt, K. C. Differential selection of intelligence according to denominational preference of college freshmen.** *J. soc. Psychol.*, 1937, **8**, 301–310.—The mean intelligence scores of the students preferring the different denominations ranked as follows: Episcopal, Christian Science, Nazarene, Congregational, Presbyterian, Protestant, Baptist, Methodist, Disciples of Christ, miscellaneous, Lutheran, Catholic, no preference. No differences between contiguous ranks were significant. This order closely resembles that for the proportional representation of the denominations in *Who's Who*. A cultural origin is postulated for the differences.—*E. D. Hunt* (Brown).

5860. **Radulescu-Motru, C. Psihologia poporului roman.** (Psychology of the Rumanian people.) *Rev. Fil., Bucuresti*, 1937, **22**, 133–147.—A brief statement of the topics of social psychology followed by an attempt to apply it to the Rumanian people. Among the main national traits characterizing Rumanians are individualism and lack of persistence in some kind of work. This individualism has, however, a special rural and patriarchal character. Rumanians like to have their own home, property, etc., without sharing them with others. They do not have, however, much courage and initiative.

They are rural people and conform their labor to the course of nature, working hard some days of summer and resting all the time in winter, etc. When the course of nature does not press them to work and take initiative they do not work. Their character is rather different from that of industrial and commercial peoples. In regard to persistence they have it for agricultural work when nature presses them, but they do not have it for industrial and commercial work. In this regard it is rightly said that "one begins work with difficulty, but one leaves it unfinished easily." Some statistical data are given in support of these affirmations. The conditioning of these national traits seems to be determined especially by constitutional and institutional factors. The constitutional factors seem to have the predominance. The author believes, therefore, that Rumanians will remain an excellent rural people but not a good industrial or commercial one.— *N. Margineanu* (Cluj, Rumania).

5861. **Rigg, M. An experiment to determine how accurately college students can interpret the intended meanings of musical compositions.** *J. exp. Psychol.*, 1937, **21**, 223–229.—College students listening to Victrola records can tell whether the music is intended to be sad or joyful, but are progressively less successful when progressively finer discriminations are attempted. Subjects trained in music are practically no more successful than untrained subjects in their ability to judge the emotional meaning of a selection. It is concluded that there is little justification for the assertion that any given composition exactly expresses farewell, represents the early morning, etc. Such feelings, when they do occur, would seem to be the result of association, and are more or less individual.—*H. W. Karn* (Pittsburgh).

5862. **Rosca, A. Adaptabilitate sociala.** (Social adaptability.) *Bul. Soc. Psihol. med.*, 1936, **2**, 18–21.—Adaptation to social environment is the main task of our life. The adaptation can succeed, fail or compromise; consequently one may have three kinds of social attitudes toward the social environment: successful, unsuccessful and compromised. An analysis of these three kinds of attitudes follows Menninger's *The Human Mind.*— *N. Margineanu* (Cluj, Rumania).

5863. **Schneider, O. Studie über die empirischen Grundlagen des Zauberglaubens bei Primitiven.** (Study on the empirical bases of belief in sorcery among primitives.) Leipzig: Jordan & Bramberg, 1937. Pp. 93. M. 4.—*R. R. Willoughby* (Brown).

5864. **Schorn, H. Beitrag zum Weber-Fechnerschen Gesetz in der Phonometrie.** (A contribution to the Weber-Fechner law in phonometry.) *Arch. ges. Phonet.*, 1937, **1**, Part I, 114.—"As to the variation of the duration and pitch of spoken vowels, a result corresponding to Gauss' law seems to be obtainable only on the condition that the frequency of anomalies is represented as depending on the logarithms of the above-mentioned linguistic characteristics and not on those characteristics themselves. That representation has already been realized by E. Zwirner's *Vierteltonwerte* with regard to the pitch of spoken vowels. Weber and Fechner's law justifies the use of logarithms."—*P. L. Krieger* (Leipzig/Munich).

5865. **Schumann, P. Die Angemessenheit der Lautsprache als Sprachmittel bei Taubstummen; eine Materialsammlung.** (The suitability of audible speech as a speech method for deaf-mutes; a collection of material.) *Dtsch. Sonderschule*, 1937, **4**, 258–266.—In the two sections, "Babbling and the characteristic speech of deaf-mutes" and "Speech in sleep and dreams," Schumann reviews the treatment of this question in the publications of teachers of deaf-mutes.—*P. L. Krieger* (Leipzig).

5866. **Seashore, C. E. Piano touch.** *Sci. Mon., N. Y.*, 1937, **45**, 360–365.—The pianist has at his direct control only two of the four factors in music; namely, intensity and time. Pitch and timbre are determined primarily by the composer and the instrument. Touch is reduced to the fundamental factor of intensity, which the pianist controls only in terms of the velocity of the hammer at the moment at which it leaves the escapement mechanism and by action of the pedals. A fairly adequate record and subsequent analysis of musical performance can be made by recording this velocity of the hammer blow and the action of the dampers.—*O. P. Lester* (Buffalo).

5867. **Seemann, M. Die Bedeutung der Zwillingspathologie für die Erforschung von Sprachleiden.** (The significance of twin pathology for the investigation of speech disorders.) *Arch. ges. Phonet.*, 1937, **1**, Part II, 88.—Seemann introduces twin pathology as a method of studying speech disorders and their heredity. Among approximately 21,660 patients in his department and children in the Prague kindergartens he found 123 twins, and was able to examine 39 of them thoroughly. 14 were monozygotic twins. Speech development was delayed in 9 of the 14. The failures observed were various forms of stammering, and in each case both speech and disturbances thereof were the same in both twins. In regard to the heredity of delayed speech development, Seemann was successful in confirming his earlier work in family pathology and was able to show that this is an idiotypical characteristic. It is generally assumed that the disposition to stutter is hereditary. In the case of twins it is important to know how great is the influence of mental infection, i.e. induction. In 5 dizygotic twins only one of the pair stuttered, although 3 of the pairs were susceptible from a hereditary standpoint. This proves that not too much weight should be given to Nadoleczny's theory concerning the importance of psychic infection as a source of stuttering. In the literature on this subject only 3 pairs of monozygotic twins are described in which both individuals stuttered.—*P. L. Krieger* (Leipzig/Munich).

5868. **Shapiro, H. L. Quality in human populations.** *Sci. Mon., N. Y.*, 1937, **45**, 109–118.—Physical anthropology has been remarkably constant

to a specific goal, viz., measurement to uncover reliable criteria for racial classification. But the racial classification of man is an anatomical one, and the author believes these traditional studies of physical anthropology have as yet nothing to offer of value in determining physical quality, which he tends to define as efficiency. However, the expectation is voiced that the study of constitutional types and investigations of endocrine control of growth may throw some light on the definition and recognition of quality.—*O. P. Lester* (Buffalo).

5869. **Shaw, T. L. Art reconstructed; a new theory of aesthetics.** Boston: Marshall Jones, 1937. Pp. 278. $2.00.—*R. R. Willoughby* (Brown).

5870. **Sisson, E. D. The role of habit in eye-movements in reading.** *Psychol. Rec.*, 1937, **1**, 159–168.—After a review of the literature dealing with the part played by eye-movements in reading and of the results of experiments conducted by the author it is concluded that reading ability cannot be explained on the basis of eye-movements which are "expressions or symptoms of underlying processes of assimilation."—*P.S. de Q. Cabot* (Simmons).

5871. **Smith, M. Racial origins of eminent personages.** *J. abnorm. soc. Psychol.*, 1937, **32**, 63–73.—The best experiments reported to date have not eliminated all of the environmental and social differences between the races, and consequently the cause of the differences in eminence is not clearly proved to be differences in native ability. From data reviewed, Indians have about one-tenth as many chances for eminence in the United States as the general population, but almost three times as many chances as negroes. The factors of environment must be given the most prominent place in the explanation of race differences in the origin of eminent Americans. Race status is of great importance. The individual in any of the races with inferior status must overcome some obstacle in making achievements and an even greater obstacle in obtaining recognition.—*C. H. Johnson* (Boston Psychopathic Hospital).

5872. **Speyer, N. Eine Untersuchung nach den Triebgrundlagen des Selbstmordes.** (An investigation of basic motives in suicide.) Apeldoorn, Netherlands: Apeldoornsche Bosch, 1937. Pp. 23.—*R. R. Willoughby* (Brown).

5873. **Squires, P. C. The problem of Beethoven's deafness.** *J. abnorm. soc. Psychol.*, 1937, **32**, 11–62.—Every detail of a clinical picture of chronic catarrhal otitis media presents itself in Beethoven's case. The basic causation of his deafness was syphilis. All of his symptoms and the entire course of his disease—in so far as fact can be separated from fiction—are not only absolutely consistent with the diagnosis of acquired syphilis, but overwhelmingly demand this pronouncement. That there has been a conspiracy of silence and suppression of facts basic to the solution of this case must always remain gravely suspect, to say the least. His was a type of deafness that, beginning in the middle twenties, progressed to practically total status by the approximate age of forty-five. There were periods, virtually to the end, during which he could hear, at least by means of special appliances. Beethoven is an outstanding example of the compensation mechanism; he desperately strove to portray abounding health and well-being in opposition to his own lack of them. His psychopathic, paranoid nature, immeasurably aggravated by progressive loss of contact with people, acted as a powerful drive toward artistic accomplishment.—*C. H. Johnson* (Boston Psychopathic Hospital).

5874. **Stace, W. T. The concept of morals.** New York: Macmillan, 1937. Pp. 318. $2.25.—*R. R. Willoughby* (Brown).

5875. **Stahl, H. Scoala monografiei sociale.** (School of social monographs.) *Arhiva pentru Stiinta Ref. soc.*, 1936, **14**, 1130–1165.—A review of the main methodological contributions of the Rumanian school of social monographs devised by Gusti. Much credit is given to the social-psychological aspect of a social community. A social community is considered to be first of all a psychological and spiritual reality.—*N. Margineanu* (Cluj, Rumania).

5876. **Stahl, H. Cununa in satul Sant.** (The garland in the town of Sant.) *Sociol. Roman.*, 1936, **1**, 11–21.—A social-psychological description and analysis of certain Rumanian folkways practiced when grain is removed from the field. Written, musical, photographic and cinematographic records were made. A garland of grain is made by girls, which is brought home by all workers with special ceremony. One turns water upon the garland and upon the girl who brings it; one sings special songs; one recites special verses; then there is feasting, singing and dancing. The ceremony is about the same throughout Rumania. It seems to be socially and historically conditioned.—*N. Margineanu* (Cluj, Rumania).

5877. **Stahl, H. Vecinatatile din satul Dragus.** (Neighborhoods in the town of Dragus.) *Sociol. Roman.*, 1936, **1**, 21–31.—A social-psychological study of certain social areas of a Rumanian town, with special reference to the structure of the rural town as a social group. There are 12 different neighborhoods, determined either genealogically or geographically. In the first case a neighborhood is descended from a single family; in the second case there are different families without blood relation, but dependent upon certain topographical determinants.—*N. Margineanu* (Cluj, Rumania).

5878. **Stahl, H. O visionara bucovineana.** (A Bucovinian visionary.) *Sociol. Roman.*, 1936, **1**, 49–53.—A social-psychological case study of a Rumanian visionary of Bucovina (Rumanian province). The vision reveals a deep religious mysticism, mixed with a series of personal and especially social factors.—*N. Margineanu* (Cluj, Rumania).

5879. **Stolz, K. R. The psychology of religious living.** Nashville: Cokesbury, 1937. Pp. 375. $2.50.—The dean of the Hartford School of Religious Education explains religion's part in the develop-

ment of wholesome personality.—*R. R. Willoughby* (Brown).

5880. **Sudeteanu, C. Conducătorul si raporturile sale cu mediul social.** (The leader and his relations to society.) *Freamatul Scoalei*, 1937, **3**, 245–250.—A study of the psychology of the leader and of his relations to society, based upon the experience of contemporary European dictatorships; a social-psychological analysis of the relations between the leader and society, which are relations of domination and submission; and a summary of historical considerations regarding the evolution of these relations and their present status.—*N. Margineanu* (Cluj, Rumania).

5881. **Sullivan, E. B., Amsden, C. N., Marshall, M., & Clapp, J. Qualifications for social workers in the field of probation.** *Soc. Work Technique*, 1937, 2, 192–201.—The findings reported in this article deal with the opinions expressed by the authorities in the field of probation and delinquency and with a comparison of the opinions of authorities with those of probation workers in the field. In general, the authorities attached less value than did the probation officers to such incentives for entering the probation field as "love for humanity" and "service." They were also more conservative and more critical in evaluating traits. Greatest emphasis was placed by both groups on the possession of desirable personality traits and adequate training, including good character, the mastery of specific techniques, and the assumption of community responsibility. Education was considered more important by authorities and was minimized by officers, but the specific techniques of probation work were assigned similar values by both groups.—*M. Keller* (Brown).

5882. **Thompson, S. Motif-index of folk-literature. Vol. VI.** *Ind. Univ. Stud.*, 1936, Nos. 111–112. Pp. 647.—This is the last volume in the series previously abstracted (see X: 4177). It comprises an extensive subject index to the classified tables of motifs.—*C. M. Louttit* (Indiana).

5883. **Thorndike, E. L. What we spend our money for.** *Sci. Mon., N. Y.*, 1937, **45**, 226–232.—Eight psychologists, five women (including experts in nutrition, home economics, and the family), three economists, and a small miscellaneous group of intelligent persons served as judges to draw up a list of wants and then to estimate what wants are satisfied by the 8000 million dollars spent for clothing in the U. S., the 3500 million dollars spent for life insurance, etc., (Lynd's estimates). "What we spend our money for can be translated into what we spend our working time for." The hours of the working day of adults are spent roughly as follows: 25% for subsistence and perpetuation; 2% to avoid or reduce sensory pain; 7% for security; 8% for welfare of others; 30% for entertainment; 10% for companionship and affection; 10% for approval; 4% for intellectual activity; 2% for dominance over others; 2% for other wants.—*O. P. Lester* (Buffalo).

5884. **Trubetzkoy, N. Über eine neue Kritik des Phonembegriffes.** (A new criticism of the phoneme concept.) *Arch. ges. Phonet.*, 1937, **1**, Part I, 129–153.—"The objections raised against the phoneme theory are mostly due to misunderstanding. It is generally overlooked that not the phoneme but distinctive opposition is the fundamental idea of phonetics. The ability of speaking subjects to abstract and to perceive separately the different features of the same sound, as far as these features have different linguistic functions, is underrated. But most of all one is inclined to make no distinction in practice between 'speech' and 'language,' which are generally distinguished in theory."—*P. L. Krieger* (Leipzig/Munich).

5885. **Van Riper, C. The influence of emphatic [empathic] response on frequency of stuttering.** *Psychol. Monogr.*, 1937, **49**, No. 1, 244–246.—"When stutterers attempted to pronounce words which had just previously been pronounced by a normal speaker or bad stutterers, they stuttered more frequently in the latter situation. The results are attributed to the effects of the emphatic [empathic] response to such stimulation."—*K. F. Muenzinger* (Colorado).

5886. **Visher, S. S. Where our notables came from.** *Sci. Mon., N. Y.*, 1937, **45**, 172–177.—24 groups (some of them of considerable size) of scientists and non-scientific notables born in the latter part of the nineteenth century were studied as to rank of the various states and sections in the yield of notables; as to comparative yield of areas which differ in respect to climate, ruggedness, and wealth; as to the yield of farm, village, and different types of cities; and as to the types of homes (religion, occupation of fathers, European ancestral origin). A considerable body of data is summarized and discussed under these headings and some tentative conclusions are offered.—*O. P. Lester* (Buffalo).

5887. **Voegelin, C. F. Anthropological limits of language.** *Proc. Ind. Acad. Sci.*, 1937, **40**, 57–64.—"What linguistic variety does exist in the languages of the world is to be found within the areas circumscribed above in phonemes, units, manipulation of units, and meanings expressed by this manipulation."—*C. M. Louttit* (Indiana).

5888. **Whisler, L., & Remmers, H. H. A scale for measuring individual and group morale.** *J. Psychol.*, 1937, **4**, 161–165.—A scale, designed after the pattern of Thurstone's scales of attitudes, is described which may be employed to compare persons or groups concerning which is "better." "The distribution of ideas of better or worse is a problem in itself, a problem of cultural areas."—*J. McV. Hunt* (Brown).

5889. **Wilde, F. Stottern im Licht der Klagesschen Philosophie.** (Stuttering in the light of Klages' philosophy.) *Dtsch. Sonderschule*, 1937, **4**, 532–541.—The stutterer's situation is explained on the hypothesis that the mind, infected by the will, disturbs the soul-fantasy speech movements and becomes the master, whereas it should be the servant.—*P. L. Krieger* (Leipzig).

5890. **Wile, I. S. The man takes a wife; a study of man's problems in and through marriage.** New York: Greenberg, 1937. Pp. 277. $2.50.—*R. R. Willoughby* (Brown).

5891. **Wullen, H. v. H. Eugenics in other lands. A survey of recent developments.** *J. Hered.*, 1937, **28**, 269–275.—The world is waking to the significance of eugenic principles for population quality, with Germany leading the way by sterilizing the unfit, by encouraging the reproduction of the culturally superior, by making rural life more attractive and halting the trend to cities, by educating school children as to their responsibility in racial replacement, by requiring proper qualifications of those applying for government jobs, and by new legislation on marriage regulation and certification of freedom from hereditary taint in applicants. England is active in trying to adopt a "persuasive approach" to sterilization. In Scotland lectures on genetics are delivered to medical students. In Czechoslovakia the eugenics movement is meeting with opposition from Catholics and political Leftists. Eugenic activities in Norway, Hungary, Japan, Canada, Australia, and New Zealand are discussed. The marriage laws of different countries are reviewed, the most interesting being Iceland's requirement that contraceptive information be furnished where the birth of children is deemed undesirable for social or medical reasons.—*G. C. Schwesinger* (American Museum of Natural History).

5892. **Zipf, G. K. Observations of the possible effect of mental age upon the frequency-distribution of words, from the viewpoint of dynamic philology.** *J. Psychol.*, 1937, **4**, 239–244.—After pointing out that the exponent in the formula $ab^2 = K$ (a is the number of words of the same frequency in a sample of inflected language, b is the frequency with which a word occurs in the sample, and K is a constant), which is considered valid for all but the most frequently occurring words, will decrease if the average rate of repetitiveness of the words of the sample is increased, this investigator sought evidence from the analysis of two samples from children. One sample of 8300 words was taken from the speech of a girl 2 years 7½ months old, the other of 25,000 words from a five-year-old child. The exponent in the formula proved to be larger for the older child in spite of the fact that the sample was larger, which would affect the exponent inversely. In view of this evidence and of theoretical considerations concerning the necessary relationship between size of vocabulary and amount of repetition within a sample, the writer suggests that the exponent may be potentially serviceable as a measure of intelligence.—*J. McV. Hunt* (Brown).

[See also abstracts 5487, 5516, 5575, 5583, 5597, 5644, 5678, 5697, 5698, 5721, 5727, 5751, 5758, 5764, 5769, 5773, 5775, 5776, 5787, 5796, 5897, 5933, 5934, 5948, 5994, 6007, 6008, 6009, 6019, 6024, 6025, 6027, 6033, 6040, 6057.]

CRIME AND DELINQUENCY

5893. **Backlin, E. Om bedömning och behandling av sinnessjuka och psykiskt abnorma brottslingar.** (On the diagnosis and treatment of insane and mentally abnormal criminals.) *Soc.-med. Tidskr.*, 1937, **14**, 151–157.—Swedish courts determine whether or not a criminal shall be given mental examinations and be psychiatrically observed. In practice some two months of observation in the psychiatric ward of the prison is taken to be sufficient. The writer argues for a much more thorough examination, comprising all phases of mental life.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5894. **Bloem, L. Die Situation der Straferwartung in der Untersuchungshaft.** (The state of expecting punishment in detention for investigation.) *Bl. Gefängnisk.*, 1934, **65**, n.p.—*P. L. Krieger* (Leipzig).

5895. **Cazzaniga, A. [Legal medicine and nepiology.]** *Lattante*, 1936, No. 2, 116–132.—*L. Canestrelli* (Rome).

5896. **Gierlichs, W. Zur Natur- und Sozialgeschichte des "Gang."** (The natural and social history of the gang.) *Krim. Mh.*, 1937, **8**, 145–150.—Gierlichs discusses criminal organizations, their capitalistic methods, and their psychological basis, as exemplified by the post-war Chicago gangs. Although prohibition, a war-spite measure against German-American brewers, stimulated organized crime enormously, the real basis of the gangs was the complete "business" orientation of American capitalistic culture, with wealth as its measure of value, plus political indifference. Since repeal and the enactment of stronger laws against kidnaping, gangs are turning their capitalistic methods to the extension of racketeering. Fear and hate, passion and desperation are stronger in the criminal than in the ordinary man. His energies are devoted on the one hand to fleeing publicity and on the other to establishing his social life within the gang, where he finds protection and an object for loyalty.—*M. E. Morse* (Baltimore).

5897. **Gordon, R. G. Delinquency in relation to the broken home.** *Arch. Dis. Childh.*, 1937, 12, 111–117.—*D. J. Ingle* (Mayo Foundation).

5898. **Gossman, R. J. Adjustment of juvenile delinquent boys.** *J. except. Child.*, 1937, **3**, 148–150.—The author describes the handling of delinquent boys by the principal of the Chicago Juvenile Detention Home, and discusses the chief causes of delinquency.—*L. A. Averill* (Worcester State Teachers College).

5899. **Harno, A. J. Rationale of a criminal code.** *Univ. Pa. Law Rev.*, 1937, **85**, No. 6. Pp. 15.—In the evolution of criminal law we find wide shifts in the concept of punishment. From punishment as an institution of vengeance and expiation, with social utility, to punishment as a deterrent, still an institution but with rationalization of its social significance, modern thought is turning its emphasis to measures

of social utility. Analysis of the premises of "criminal responsibility," of "motive" and of "individualization," study of personnel and administrative organization, as well as recognition of the cardinal principle of criminal law—the protection of society—are necessary before drafting a modern code.—*E. D. Hunt* (Brown).

5900. **Harvey, O. L. The law-breaking situation.** *J. abnorm. soc. Psychol.*, 1937, **32**, 1–5.—The approach to the correction of law-breaking behavior by way of causal reconstruction should recognize the need for reconstruction of the entire situation and not merely of the individual himself. It should concern itself with the extent to which laws actually represent the public opinion of all groups at a given time, a problem which has its roots deep in the structure of community organization. By limiting their efforts to the reconstruction of the offender alone, the causal reconstructionists beg the question and expose themselves to the indictment of being biased toward a benevolent form of retaliation.—*C. H. Johnson* (Boston Psychopathic Hospital).

5901. **Ihrlich, A. Die Brandstifter.** (The incendiary.) Würzburg: Mayr, 1937. Pp. 62.—*R. R. Willoughby* (Brown).

5902. **Ionasiu, L., Stoenescu, T., & Cupcea, S. Indicele Pignet la criminali in comparatie cu normalii si cu alienatii.** (The Pignet index of criminals in comparison with that of normal and insane people.) *Bul. Soc. Psihol. med.*, 1936, **2**, 72–76.—The Pignet index has been determined for criminals, normal people and insane people. Criminals have a much smaller Pignet index than normal and insane individuals. There seems to be a certain constitution of personality favorable to crime; of course the environment can facilitate or inhibit the manifestation of this constitution. It also is a factor in determining crime. Native constitution, however, is another factor and may be the most important one, especially in cases where one has to do with crime and not merely with delinquency.—*N. Margineanu* (Cluj, Rumania).

5903. **Lippman, H. S. Treatment of behavior problems, particularly delinquency, in European clinics visited during summer of 1935.** *Minn. Med.*, 1936, **19**, 421.—*R. R. Willoughby* (Brown).

5904. **Minovici, N. Aplicatiunile psihologiei medicale in medicina legala.** (Applications of psychology in legal medicine.) *Bul. Soc. Psihol. med.*, 1936, **2**, 11–17.—Psychological examinations have a great value in social and legal medicine, when the physician is called to diagnose causes and probabilities of certain crimes. In the majority of such cases the physician must have an understanding of criminal personality in order to give explanations in regard to the crime. A list of the methods which are to be used in such cases is given. Besides the general clinical method based on biography, one has to make use of tests, apparatus, psychogalvanic reflexes, etc. Due credit must be given to the family and the social environment of the individual as well as to his economic position.—*N. Margineanu* (Cluj, Rumania).

5905. **Parhon, I. C. Relatiunile crimelor si delictelor cu etica sociala.** (The relation of crimes and delinquencies to social ethics.) *Bul. Soc. Psihol. med.*, 1936, **2**, 6–10.—The legal irresponsibility of abnormal delinquents is often abused, and laws covering it should be made more rigorous. No one, normal or abnormal, is completely responsible for his acts; punishment is administered not alone because of guilt, but to protect society from further crimes.—*N. Margineanu* (Cluj, Rumania).

5906. **Popescu-Sibiu, I., & Stoenescu, T. Geneza sociala a sugestibilitatii in raport cu infractiunile.** (Social genesis of suggestibility and its relation to delinquency.) *Bul. Soc. Psihol. med.*, 1936, **2**, 101–106.—Delinquency ought to be studied biologically, psychologically and sociologically. Suggestion seems to play a rather large role in certain cases of delinquency. It is socially determined. An analysis of its mechanism is attempted.—*N. Margineanu* (Cluj, Rumania).

5907. **Preda, G. Reflexul de situatie si sugestibilitatea.** (Reflex of situation and suggestibility.) *Bul. Soc. Psihol. med.*, 1936, **2**, 63–67.—Reflex and suggestibility are factors in delinquency. Delinquency is determined by a certain environment and personality. The stimulus also plays a rather important role. The same personalities with the same environment are delinquent in certain situations and not delinquent in other rather similar situations. An analysis of various kinds of situations is made.—*N. Margineanu* (Cluj, Rumania).

5908. **Stoenescu, T. Sugestibilitatea la infractori.** (Suggestibility of infractors.) *Bul. Soc. Psihol. med.*, 1936, **2**, 94–100.—The influence of social environment in determining crimes and delinquency is discussed. A verification of the Chicago sociological theory of delinquency was attempted with Rumanian subjects. Conclusions: (1) crime is produced by both environment and constitution; (2) the sociological theory of crime is true, although the constitutional factor should not be overlooked; (3) suggestible people seem to be more affected by social environment. Individuals, however, do not differ largely in this regard.—*N. Margineanu* (Cluj, Rumania).

5909. **Stumpfl, F. [The source of crime. Based on the histology of twins.]** Leipzig: Thieme, 1936. Pp. 176. M. 5.80.—This book is based on a study of 65 pairs of twins who showed criminal behavior. Of 15 pairs of identical male twins, there was similarity of criminal behavior in 9 pairs and dissimilarity in 6 pairs. Of 17 pairs of fraternal male twins, 7 exhibited concordance and 10 discordance of criminal behavior; of 3 pairs of identical female twins there was concordance in 2 pairs and discordance in 1 pair, and of 2 pairs of fraternal female twins there was dissimilarity of criminal behavior in both pairs. Résumés of the records of all the pairs of the same sex comprise roughly two fifths of the book. All the identical twins are reported to have been similar in

every-day social adjustment, character structure and the configuration of psychopathic tendencies, while the fraternal twins were always different in these respects. The author concludes that some criminality is of hereditary origin and should lead to sterilization.—(Courtesy *Child Develpm. Abstr.*)

5910. **Wittels, F. The criminal psychopath in the psychoanalytic system.** *Psychoanal. Rev.*, 1937, **24**, 276–291.—The criminal discussed here is the over-promiscuous individual of either sex who shows marked psychopathy but nothing as complicated as a neurosis or psychosis. Such an offender is really a narcist of a special bisexual type—Don Juan in the male, and Messalina in the female. The classic description of these types fails to show the feminine component in the male and the male component in the female, but they are present. Serious crimes result from the criminal's "suicidal" attempt to get away from his weaker component. He is too narcissistic to have real guilt reaction. There is a special classification of phallic levels applicable to these people. A strong partner is needed to supply a super-ego for them. They need glory and glamor; analysis is seldom of value in these cases.—*L. S. Selling* (Recorder's Court, Detroit).

5911. **Young, H. T. P. Aspects of temperament in adolescent male offenders.** *J. ment. Sci.*, 1937, **83**, 268–288.—After an historical summary of various concepts of temperament, the author presents and discusses several case histories of delinquent adolescent boys, showing in each case how differences in temperament are involved. These findings are generalized in suggestions for proper institutional procedure.—*C. J. Herrick* (Pennsylvania).

[See also abstracts 5707, 5767, 5962.]

INDUSTRIAL AND PERSONNEL PROBLEMS

5912. **Bührlen, L. Versuche über die Bedeutung der Richtung bei Einwirken von Fliehkräften auf den menschlichen Körper.** (Studies on the importance of direction in the action of force on the body during flying.) *Luftfahrtmedizin*, 1937, **1**, 307–325.—Experiments were made in the sitting and lying positions. In the former (flying direction head-buttocks), the same phenomena as in aviation were noted. Large increases in speed caused visual disturbances. In the flat position (flying direction chest-back), visual disturbances occurred, but the brain and consciousness were not affected.—*P. L. Krieger* (Leipzig).

5913. **Buricescu, I. F., & Stoka, I. Elemente de psihologie şi pedagogie militara.** (Elements of military psychology and pedagogy.) Bucuresti: Tipografia scoalei militare de infanterie, 1932. Pp. 342.—A textbook of psychology and pedagogy designed for the army, that is, for officers. The main problems of psychology are viewed from the army standpoint. In order to instruct soldiers successfully one should know their personality, in order to adapt the training and instruction to their abilities. The way in which such a diagnosis can be done by means of tests and observation is explained. Problems of discipline and the group mind of a company, etc., are also discussed.—*N. Margineanu* (Cluj, Rumania).

5914. **Chou, S. K., & Chen, H. P. The rise of industrial psychology in China.** *Chin. J. Psychol.*, 1936, **1**, 140–166.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5915. **Constantinescu, E. Selectionarea surorilor de caritate.** (Vocational selection of sisters of charity.) *J. Psihoteh.*, 1937, **1**, 81–83.—A psychological examination of candidates for sister of charity. Tests applied: Riga test for memory, Piéron test for attention, tests for observation, imagination, reaction time, psychological tension. Examination data are compared with job data. There seems to be a correspondence. Subjects ranking highly by tests are ranked highly in practice and conversely.—*N. Margineanu* (Cluj, Rumania).

5916. **Davidson, C. M. Analysis of clerical tests.** *Person. J.*, 1937, **16**, 95–98.—This describes a study of four mental alertness tests, in which an attempt was made to develop a good instrument for predicting promotability. The work was done for the Life Office Management Association. By scoring only certain parts of 3 tests (Bureau Test VI, Thurstone, and modified Thurstone) it was possible to obtain correlations of .74–.82 with the criterion (promotability). The paper as presented "points the way for individual companies . . . to build up their own tests."—*H. Schlosberg* (Brown).

5917. **Kreipe, K. Psychologische Eignungsuntersuchungen in der Wehrmacht.** (Tests of psychological aptitude for military service.) *Volksspiegel*, 1937, **4**, 66–73.—A review of the various selective factors in tests of young candidates for officer's rank. The examiner should not proceed from mechanical fulfilment of the "standardized officer's" function or from temporarily effective accomplishment and mental ability, but from the type of personality, the dominating accent in the combination of qualities, and the strength, trends and developmental possibilities of the basic dispositions. —*P. L. Krieger* (Leipzig).

5918. **Kuribayasi, U. Keizai-sinrigaku.** (Economic psychology.) Tokyo: Tôen-Syobô, 1937. Pp. 321. Yen 2,50.—Contents: Introduction: 1. Theoretical and applied psychology, 2. Psychotechnics and economic psychology, 3. The divisions of the scope of economic psychology. Part I. Psychology of vocation: General remarks, 1. The study of vocations, 2. The study of individuals, 3. Vocation and mentality, especially general intelligence, 4. Vocational selection and vocational guidance. Part II. Psychology of work: General remarks, 1. Scientific management and motion study as well as time study, 2. Work and its internal and external conditions, 3. Work and accidents. Part III. Psychology of selling: General remarks, 1. Advertising and its general points of view, 2. Methods of advertising, 3. Personal relation between seller (producer)

and buyer (consumer), 4. Advertising and its several problems.—*T. Chiba* (Sendai).

5919. **Radulescu-Motru, C. Institute psihotehnice.** (Psychotechnical institutes.) *J. Psihoteh.*, 1937, **1**, 1–12.—A general discussion of the applications of psychology to economic life and to vocational guidance. The Rumanian government has made special laws for these applications. Two psychotechnical institutes have been founded, and two others are projected. They are the instruments of psychological applications. Their business is to apply psychology to economic life and vocational guidance, developing the necessary methods.—*N. Margineanu* (Cluj, Rumania).

5920. **Schneider, E. Unfallbearbeitung oder Unfallerklärung?** (Working up accidents or explaining them?) *Krim. Mh.*, 1937, **11**, 178–182.—A plea for going behind the factual and technical description of traffic accidents (from the driver's side) to the psychotechnical and psychological causes. More than 90% of all motor accidents are due to human insufficiency. The chief causes are visual (prolonged adaptation time after dazzling, stereoscopic and perspective defectiveness, incapacity to watch different traffic movements simultaneously, etc.); auditory (inability to distinguish direction and quality of sounds, etc.); and psychic (nonrecognition of one's mental and physical limitations, slowness in grasping situations, reaction time, multiple choices, completion capacity, reaction to danger, etc.). The most important qualities for a driver, unless he is of the auditory type, are well-developed senses of color and perspective.—*M. E. Morse* (Baltimore).

5921. **Simoneit, M. Zufall und Schicksal im soldatischen Handeln.** (Chance and fate in military training.) *Soldatentum*, 1937, **4**, 145–156.—A calculated 100% certainty in war and the training which contributes to this, which brings stiffness, poise, restraint and regimentation, can be only a fallacy; a tendency to expect certainty always works against daring. In order to secure freedom and mobility of action for soldiers, there is needed a training toward respect for fate, a "higher force," and a clearer distinction from blind belief in chance.—*P. L. Krieger* (Leipzig).

5922. **Strömberg, E. Kravet på synskärpa och färgsinne enligt befälsförordningen 1936.** (The demand for visual acuity and color sense according to the 1936 ordinance for officers of commercial ships.) *Svenska Läkartidn.*, 1937, **34**, 894–900.—The writer explains and criticizes in detail the new tests on visual and auditory acuity, color sense, etc., set forth in the Swedish ordinance of June 12, 1936, and maintains that some of the demands and specifications are too rigid. Certain modifications are recommended, both in the ordinance of 1936 and especially in the ordinance of February 26, 1937, concerning general able seamen.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5923. **Vollmer, W. Schulung in Hammerschlag.** (Training in hammer striking.) *Industr. Psychotech.*, 1937, **14**, 114–128.—Two groups were used in this experiment; one had one year, the other five months, at work. Both groups practiced 30 minutes daily. A hammer 350 gm. in weight was used for the older group, and the target, set in a square 10 x 10 mm., was 3 mm. long and 2 mm. wide. The first test was to hit the target. In the second test the subject was directed to strike a certain point. A piece of paper on the work table with the target outline would have the imprint of the hammer on it after the blow and from this could be determined whether the hammer was held tangent to the arc of the swing. In the third test a dial registered the force of the blow. The younger group was tested with the same tests but used a 70 gm. hammer. The results showed an increase in accuracy and in ability to strike with a specified force. It is concluded that ability to use a hammer of ordinary size can be learned or increased in a very short time by the practice suggestions outlined.—*J. C. Seidl* (Manhattan College).

[See also abstracts 5555, 5623, 5925, 5967, 5972, 5974, 6014.]

EDUCATIONAL PSYCHOLOGY

(incl. Vocational Guidance)

5924. **Ai, W. Essays on educational psychology.** Shanghai: Chung Hwa Book Co., 1936. Pp. 518. $1.50 mex.—25 selected papers on educational psychology and testing were reprinted and bound in this volume. The first two chapters on "Psychology and educational psychology" and "Stimulus and response" serve as a general introduction to the book. The two chapters on "The influence of heredity and environment upon the development of behavior" and "The influence of heredity and environment upon intelligence" are presented in detail. Ten chapters are devoted to the psychology of school subjects, including the Chinese language, English, and mathematics, all of an experimental nature. Other important papers include those on "The comparative psychology of learning," "The hygiene of learning," and "A study of the method of scoring the 'right' and 'wrong' in mental and educational tests."—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5925. **Averill, L. A. The Massachusetts teaching aptitude test.** *J. Psychol.*, 1937, **4**, 207–225.—The test itself is given, with an introductory statement and directions for administering it. Only tentative statistical standards are given, and the author asks that users send him data for final standardization.—*J. McV. Hunt* (Brown).

5926. **Bálint, A. Die Grundlagen unseres Erziehungssystems.** (The foundations of our educational system.) *Z. psychoanal. Pädag.*, 1937, **11**, 98–101.—Educational systems and culture are closely interwoven, and changes in either of them involve modifications of the other. Characteristic of our contemporary civilization are an emphasis on individuality and an increasing fear of being deprived of affection. Similarly, our educational system pre-

sents a dual aspect. During the early years training attempts to make the child independent of his mother, while during later childhood and adolescence a tabu is placed on his feelings of self-sufficiency.—*H. Beaumont* (Kentucky).

5927. **Bancila, V. Credinta si sinceritate.** (Belief and sincerity.) *Satul si Scoala*, 1937, **6**, 135–140.—Contribution to the psychology of the teacher. A teacher has to believe intensely in his mission and to behave sincerely with children. Belief and sincerity therefore are among the most important traits which make a good teacher. An analysis of these two notions is attempted and practical suggestions given. —*N. Margineanu* (Cluj, Rumania).

5928. **Bandlow, G. Schulleistung und Beruf ehemaliger Abiturienten und psychophysische Konstitution.** (School performance and vocation of former graduates of secondary schools, and psychophysical constitution.) *Z. menschl. Vererb.- u. Konst Lehre*, 1937, **21**, 95–150.—In order to establish the correlation between constitution and school performance 428 former graduates (chiefly humanistic) of secondary schools were tested by means of questionnaires and photographs on their mental and physical constitution (as defined by Kretschmer). School performance was based on absolute science, languages and mathematical-natural science subjects, and evaluated by a special rating system. It was shown that in the psychical groups the schizophrenic type received much higher ratings in all subjects than did those of the corresponding groups of the cyclothymic type. The school performance of the mixed type approximated that of the cyclothymes. The viscous types had the lowest school ratings. The professional distribution showed that the cyclothymic type predominated in the fields of medicine, historical science and theology, while the schizothymic type showed a marked predilection for the exact sciences, but only a slight predilection for the law. Linguists were distributed almost equally between the two constitutional types. Bibliography.—*S. W. Downs* (Berkeley, Calif.).

5929. **Barr, A. S. Educational research and the field worker.** *J. educ. Res.*, 1937, **31**, 1–8.—A general summary of the problem with suggestions for the development of field and research workers.—*S. W. Fernberger* (Pennsylvania).

5930. **Benari, L. Psihotehnica scolara.** (School psychotechnics.) *J. Psihoteh.*, 1937, **1**, 131–136.—A general discussion concerning psychological applications to education, and a survey of the main problems and methods.—*N. Margineanu* (Cluj, Rumania).

5931. **Betts, E. A. Retardation in reading.** *J. except. Child.*, 1937, **3**, 150–152.—The author enumerates and discusses briefly the limitations found in a study of 2000 publications covering a number of areas related to reading problems, and discusses some of the recent findings which throw some light on the problems of remedial case work in reading.—*L. A. Averill* (Worcester State Teachers College).

5932. **Bornstein-Windholz, S. Missverständnisse in der psychoanalytischen Pädagogik.** (Misunderstandings in psychoanalytical education.) *Z. psychoanal. Pädag.*, 1937, **11**, 81–90.—Psychoanalysts who are not trained in educational methods are apt to err in dealing with children. Rather than demonstrating to the child the proper way of approaching his normal fears, they tend to prevent fear situations and give evasive answers to questions involving death, etc. These should be met openly and the child trained to face and respond normally to events of which he is afraid. This can be done by avoiding too great strictness and preventing the child's aggressive impulses from becoming too strong.—*H. Beaumont* (Kentucky).

5933. **Bosch, B. Grundlagen des Erstleseunterrichts.** (Basis of instruction in learning to read.) *Beih. Z. angew. Psychol.*, 1937, No. 76. Pp. 137.—The author undertakes a comprehensive treatment, on theoretical and experimental grounds, of the problem of reading, its nature and meaning from the point of view of the child, pedagogical devices past and present, and methods of presenting the material, with special reference to the part-whole controversy. —*G. F. J. Lehner* (Brown).

5934. **Bowden, A. O., & Melbo, I. R. Social psychology of education.** New York: McGraw-Hill, 1937. Pp. xv + 296. $2.50.—The authors have applied "the principles and data of social psychology to problems and practices in the field of education." The book consists of ten chapters dealing "with the human elements in the educational process and the social-psychological factors involved in the interaction of pupils, teachers, administrators, and community." To each chapter is appended a series of thought questions, some problems for research, and selected bibliographies. The book is intended for teachers, administrators and parents, and as a textbook for prospective teachers.—*K. S. Yum* (Chicago).

5935. **Boyer, L. E. The utility of analytic geometry concepts to secondary school teachers of mathematics, science and industrial arts.** *J. exp. Educ.*, 1937, **5**, 356–367.—An analysis of questionnaire replies leads the author to conclude that there is ample justification for a three semester hour course in collegiate analytic geometry for prospective teachers in junior and senior high school mathematics. For prospective industrial arts and physics teachers and general students less claim can be made for inclusion in their courses of study of analytic geometry, inasmuch as the analytic geometry concepts which these individuals need can be covered in other courses in mathematics.—*H. W. Karn* (Pittsburgh).

5936. **Brandza, E. B. Diagnosticul pedagogic in lumina biografiilor.** (Personality diagnosis by observation.) *J. Psihoteh.*, 1937, **2**, 57–71.—Experimental research concerning the validity of the observation method used in school for personality diagnosis of school children. It is clearly demonstrated that teachers have a good opportunity to

diagnose children's personality. They can observe them systematically during one or more years and their observations are rather reliable. Consequently when children leave high school it is wise to elaborate a psychological inventory for every one and to digest in it the teachers' observations. Vocational guidance can be aided by these inventories.— *N. Margineanu* (Cluj, Rumania).

5937. **Chen, W. K. C. Variation of the same students through a series of tests and scholarship records.** *Chin. J. Psychol.*, 1936, 1, 130–139.—The data of 120 freshmen of the University of Kentucky for the academic year 1928–29 were included in this analysis. All scores were transmuted into sigma-scores for comparison. The relationship of mean individual range to the group range shows that in all the tests the average individual who took all 7 standardized placement tests is likely to vary in these tests by 34% of the difference between the two extreme scores of 120 cases for all the tests; and that the average individual with these tests, grades and standings is likely to vary in them by 56% of the difference between the two extreme scores for all the tests, grades and standings. The relationship of mean individual range to the "group variability" shows that in all the tests the average individual who took all the tests is likely to vary in these tests by 112% of the difference between the average superior and average inferior individual for all the tests; and that the average individual who had these tests, grades and standings is likely to vary in them by 147% of the difference between the average superior and average inferior individual for all the tests, grades and standings. The majority of intercorrelations are low, with a general median r of .403; $k = .9156$. The most significant facts revealed in this study are (1) low but positive correlations, and (2) no negative correlations. This fact should be significant for the popular theory of compensation.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5938. **Di Napoli, P. J. Homework in the New York City elementary schools.** *Teach. Coll. Contr. Educ.*, 1937, No. 719. Pp. 60.—In each of three districts, two schools, one having compulsory home work and the other not, were used for the study. Pupils in grades 5B and 7B (about 1200) were given at the beginning and end of the spring term, 1935, the Metropolitan achievement test and the I.E.R. activities inventory. In April, 1935, all pupils were given the Otis intelligence test. Groups from the two types of schools were equated on the basis of CA, Otis score, and total average initial score on the Metropolitan achievement test. The compulsory homework group was superior in achievement in grade 5B, but the voluntary group was slightly superior in grade 7B. The specific conclusions for each subject are given and discussed. The bibliography lists 68 references.—*J. M. Stalnaker* (Princeton).

5939. **Elliot, E. B. Developing a schedule of behavior records for use in elementary and secondary schools.** Lansing, Mich.: Department Public Instruction, 1937. Pp. 38.—This report is one of a series of basic curriculum studies developed under the sponsorship of the State Department of Education at Lansing. This study attempts to develop a technique for recording behavior of pupils in the elementary and secondary schools.—(Courtesy *Child Develpm. Abstr.*)

5940. **Elliot, E. C. An account of how a determined effort to improve scholarship has succeeded at Purdue University.** *Purdue News*, 1937, 8, 3–14.—A study of the achievements, status, and other identifications and a compilation are presented describing certain characteristics of Purdue students which are accompanied by scholastic achievement.—(Courtesy *J. educ. Res.*)

5941. **Gabrea, I. Un centru national de documentare pedagogica.** (A national center for pedagogical documentation.) *Arhiva pentru Sti. Ref. soc.*, 1936, 14, 799–816.—The project of a national institute for pedagogy and educational psychology designed to accumulate and systematize all statistical information concerning school and teaching in order to distribute them to all teachers of the country and to coordinate their activity. The institute must have a psychological section, with all psychological and educational tests, which can serve in the study of the personality of school children. This section should have also in its charge the best methods of teaching the different school subjects.— *N. Margineanu* (Cluj, Rumania).

5942. **Gates, A. I. A list of spelling difficulties in 3876 words.** New York: Bureau of Publications. Teachers College, Columbia University, 1937. Pp, 166. $2.10.—Writing more specifically for use by teachers of spelling, textbook makers, and specialists in diagnosing difficulties in spelling and word understanding, the author presents data based on several years of research in the field of spelling difficulties. The study of difficulties encountered in the spelling of 3876 words, a representative sampling on the basis of frequency in spelling texts and lists, leads the author to the conclusion that there are present certain "hard spots" in most words where spelling errors are most likely to occur. A knowledge of these "hard spots" is believed essential for teachers in providing help needed by pupils who are poor spellers. A list of the entire 3876 words is presented showing the "hard spots," common misspellings, average spelling grade placement, and comprehension grade-ratings of each word.—*D. Bailey* (Mt. Holyoke).

5943. **Georgescu, T. Introducere la o orientare profesionala in scoala romaneasca.** (Introduction to vocational guidance in Rumanian schools.) *J. Psihoteh.*, 1937, 1, 99–105.—The school does not end its function with teaching. It prepares for life and therefore it has to take care of the vocational guidance of its graduates. Teachers must think about the abilities of children in view of certain jobs for which the children are best fitted, and must make their observations in this regard when children leave

school. Practical hints are given in relation to the way to make such observations.—*N. Margineanu* (Cluj, Rumania).

5944. **Gladston, I. The psychologic factors of health education.** *Amer. J. publ. Hlth*, 1936, **26**, 171.—*R. R. Willoughby* (Brown).

5945. **Goldsmith, S. The place of the fable in the character training of children.** *J. exp. Educ.*, 1937, **5**, 343–345.—Comparison of scores made by experimental and control groups of fourth grade children on tests composed of situations based upon those in selected fables leads the author to conclude that the study of the fable caused no definite improvement in moral judgment. The teaching technique seemed to have no bearing upon the degree of moral influence exercised through a study of the fable. No apparent relationship was demonstrated to exist between intelligence and moral judgment.—*H. W. Karn* (Pittsburgh).

5946. **Good, C. V. Selected bibliography on the methodology of educational research and related problems, 1936–1937.** *J. educ. Res.*, 1937, **31**, 61–80.—Bibliography of 352 titles arranged under the following topic headings: problems, issues and trends; sources of information; collecting, analyzing, interpreting and reporting data; evaluation of research and educational procedure; and training and guidance of research workers and graduate students.—*S. W. Fernberger* (Pennsylvania).

5947. **Graewe, H. Die Schulleistungen erbgleicher Zwillinge.** (The school attainments of identical twins.) *Volk u. Rasse*, 1937, **1**, 1–17.—Study of the handwriting and drawings as well as other school observations of 5 pairs of identical twins shows the similarity in attitude and accomplishment.—*P. L. Krieger* (Leipzig).

5948. **Herseni, T. Consecintele pedagogice ale sociologiei copilului.** (Pedagogical consequences of the sociology of the child.) *Sociol. Roman.*, 1936, **1**, No. 3, 20–22.—Education has to consider not only children's personalities, but also the class as a whole. A class of children is not a simple aggregate of many children with isolated individualities; it is a whole the traits of which are more than the sum of the individual traits of each child. Beside the individuality of each child one must take into consideration the individuality of the class.—*N. Margineanu* (Cluj, Rumania).

5949. **Hourticou, L. [Classification of school children: how it protects children and advances education.]** *Bol. Inst. int. amer. Prot. Infanc.*, 1936, **9**, 438.—*R. R. Willoughby* (Brown).

5950. **Hunt, L. W. How college women spend their time.** *Sch. & Soc.*, 1937, **46**, 318–320.—For five years upper-class women in a nutrition course at the State College of Washington kept complete records of how their time was spent on week-days. From the records of 150 subjects results were obtained which are in good agreement with studies made elsewhere. About ⅓ of the time is spent in sleep, a little less than ⅓ in study, and a little more than ⅓ in eating, personal care, social activity and exercise.—*M. Lee* (Chicago).

5951. **Jaensch, E. R. Zur Neugestaltung des deutschen Studententums und der Hochschule.** (Concerning the reorganization of German student life and the high school.) *Beih. Z. angew. Psychol.*, 1937, No. 74. Pp. 86.—Reorganization of German schools and student life is proceeding out of the comprehensive youth guidance programs and the consequent formation of a "new idealism close to realism." To the aid of this reorganization must come psychology, particularly with its findings concerning human types; each type, on the basis of its particular structure, must be given opportunities to develop to the fullest extent.—*G. F. J. Lehner* (Brown).

5952. **Kaya, T. Gakusyû sidô no keitai-sinrigakuteki kenkyû.** (The Gestalt-psychological investigation of the guidance of learning.) Tokyo: Tôen-Syobô, 1936. Pp. 268. Yen 2,50.—Contents: 1. Introduction. 2. Gestalt quality of mind. 3. Gestalt quality of learning; (a) Special functions and general functions, (b) Mental scientific course of study, (c) Natural scientific course of study, (d) Artificial course of study. 4. Conclusion.—*T. Chiba* (Sendai).

5953. **Koht, K., & Koht, Å. Pedagogisk psykologi.** (Educational psychology.) Oslo: J. W. Cappelen, 1937. Pp. 395.—The book is intended primarily as a text for state normal schools in Norway. Following a general introduction, the five main chapters treat: general psychology, 218 pages; developmental psychology, 59 pages (by the following periods: 1st year, years 1–4, 5–8, 9–13, 13–19, maturity, senescence); individual psychology, 40 pages; school psychology, 38 pages (the teacher, discipline, home and school, the different school subjects, mental hygiene in the school, etc.). Bibliography and index.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5954. **Lang, L. [Commanding and obeying: a contribution to the problem of educational authority.]** Vienna: Deutscher Verlag für Jugend und Volk, n.d. Pp. 112. M. 5.18.—This treatise begins with a critical examination of the psychological and moral bases of the problem. It describes the characteristics of commanding as a socio-psychological situation and analyzes the theoretical justification of the use of authority in education. On the basis of these theoretical principles the writer draws the following practical applications: The educative command should be quiet and free of disturbing emotional elements; it should be clear and concise, and, once an order has been given, it should persist in full confidence that it will be obeyed. In every instance the order should reflect the fact that the one giving the order is himself obedient to a higher authority. In other words, the obeying pupil should have the feeling that the teacher is not giving an arbitrary command but is himself obeying a moral law. The closing chapter surveys the conflicting positions taken by the several schools of pedagogical

thought with regard to the problem of the educational command and the use of authority in education.—(Courtesy *Child Develpm. Abstr.*)

5955. **Leland, B. M. Environmental and psychological handicaps among non-readers.** *J. except. Child.*, 1937, **3**, 152–156.—The author discusses the following hindrances which are detrimental to reading largely because they are detrimental to learning: unfortunate family situations, overprotection, deprivation, poor teacher personality, teacher domination, uniformity of teaching technique, sophisticated environmental interests, visual and auditory deficiencies, and defective motor abilities.—*L. A. Averill* (Worcester State Teachers College).

5956. **Lincoln, M. E. Teaching about vocational life.** Scranton, Pa.: International Textbook Company, 1937. Pp. 617. $4.50.—This volume grew out of the author's experiences in teaching classes in educational and vocational information in the public schools of Rochester, N. Y., and in conducting summer classes at Teachers College and the Horace Mann Demonstration School. The increased realization of the need for organized presentation of educational and vocational information, and the strong desire of administrators to meet this need and of teachers and counselors to know more regarding its possibilities, prompted the author to prepare this handbook in principles and procedures. The chapter titles include: formulating objectives, presenting information, planning of courses, varying the class procedure, utilizing school subjects, using drama and radio, measuring results of instruction, evaluating outcomes of guidance, etc. The emphasis throughout is upon concrete suggestions rather than philosophical considerations; there are references for each chapter and an exhaustive bibliography at the end of the book. In an appendix of 75 pages are included sections on such topics as: suggestions for the study of local industries, outline for the evaluation of occupational pamphlets, a tentative scale for rating textbooks for use in occupational classes, etc. —*L. A. Averill* (Worcester State Teachers College).

5957. **Lloyd-Jones, E. What do we mean by guidance and personnel in education?** *Sch. & Soc.*, 1937, **46**, 261–266.—The now popular term *guidance* is given a confusing variety of meanings: vocational guidance, child guidance by a psychiatrist, a program based on objective tests and measurements of I.Q. and achievement, individualizing the subject matter to each child's level and needs, utilizing elaborate cumulative records, a rich program of extra-curricular and social activities, personal counseling, parent education and guidance, and health guidance. In reality guidance covers all of these fields, and the concept is incomplete without considering them all, but more important than any of the parts is their synthesis.—*M. Lee* (Chicago).

5958. **Luca, G. Correlazione tra le attitudine psico-motorie, rivelate da reattivi di laboratorio e le qualifiche scholastiche.** (Correlation among psychomotor attitudes obtained from laboratory experiments and scholastic qualifications.) *Riv. Psicol.*, 1937, **33**, 26–37.—328 technical-school students between 12 and 20 years old were given a series of measurements, including examination of general physical characteristics, muscular system, and nervous system, careful determinations of reaction time to various stimuli, and a medical estimate of the personality. Some of the tests were among the more standardized ones, others were original with the author. These measurements correlated well with scholastic judgments for the different specialized courses of training. The usefulness of the psychophysical tests employed is indicated for adequately guiding the subject in vocational selection.—*T. M. Abel* (Trade Extension Classes).

5959. **McCallister, J. M. Remedial and corrective instruction in reading: a program for the upper grades and high school.** New York: Appleton-Century, 1936. Pp. xviii + 300. $2.00.—*R. R. Willoughby* (Brown).

5960. **Ministerul Instructiunii. Lamuriri pentru utilizarea fisei pedagogice.** (Instructions for applying personality inventories in school.) Bucuresti: Editura Casei Scoalelor, 1934. Pp. 42.—The Rumanian government has decided, through the Department of National Education, to apply a personality inventory to every school child. This inventory is based mainly on observation, but also uses some tests and apparatus, and covers the most important intellectual functions, such as intelligence, memory, association, attention, learning, etc., as well as some character and temperament traits. It is designated to serve as an instrument in vocational guidance. When children leave school they receive such an inventory, elaborated during the years of school. They must present it to another school or to the office of vocational guidance, together with the other school certificates. They receive advice based upon inventory and certificates. The pamphlet contains practical hints which are to be considered in the elaboration of the personality inventory.—*N. Margineanu* (Cluj, Rumania).

5961. **Muniagurria, C. [The function of kindergartens and mothers' clubs in child welfare.]** *Bol. Inst. int. amer. Prot. Infanc.*, 1936, **10**, 205.—*R. R. Willoughby* (Brown).

5962. **Nestor, I. M. Studiul psihologic si orientarea profesionala a delincventilor minori.** (Psychological studies and the vocational guidance of juvenile delinquents.) *J. Psihoteh.*, 1937, **1**, 84–86.—A general discussion of the necessity of applying psychological examinations in vocationally guiding young delinquents.—*N. Margineanu* (Cluj, Rumania).

5963. **Nestor, I. M. Principii de docimologie.** (Principles of docimology.) *J. Psihoteh.*, 1937, **1**, 113–123.—A general discussion of docimology, which concerns itself with school examinations and marking. After a bibliographical documentation, the general principles which must guide school examinations and marking are given; these have to do with psychological functions and psychological scoring, and principles used in psychological scores

might also be successful in school examinations and marking. The need of a good docimology is very great. Its lack gives occasion to a very arbitrary grading and examination. Some cases are given and analyzed.— *N. Margineanu* (Cluj, Rumania).

5964. **Pavelco, V. Inspectia scolara in lumina psihotehnicei.** (School inspection in the light of psychotechnics.) *J. Psihoteh.*, 1937, **1**, 124–130.—The present methods used in inspecting a school, to which so much importance is given, are entirely old-fashioned and do not deserve the credit which is given them. Inspectors proceed in an arbitrary manner, according to their own subjective judgment, and do not have any objective and exact criteria in mind. In order to evaluate the learning of the class and the way in which teachers have done their duty, a simple, short visit to a class to observe the answers of children and eventually to question them briefly is far from satisfactory. The visit must be much longer, the examination more intensively and systematically performed. Besides this, one should know the native capacities of the class, that is, their intelligence and other native abilities. Knowledge and learning must be judged in relation to these native abilities, which are not the same in all classes and schools. The same quantity of knowledge might mean more or less, according to the native abilities. Examination and questioning, however, are not quite objective. Inspectors therefore must standardize them. Consequently, besides intelligence tests, inspectors should also use knowledge tests. These tests alone will give an objective criterion in judging the learning of a class in comparison with others and the way in which teachers have done their duty.— *N. Margineanu* (Cluj, Rumania).

5965. **Pintiliescu, V. Aspecte din viata studentelor.** (Aspects of the life of girl students.) Cluj: Cartea Romaneasca, 1937. Pp. 210.—A psychological and sociological study of girl students based upon a questionnaire with 90 items regarding social and economic position of parents, factors determining the choice of study, how courses and seminars are attended and research prepared, relations between professors and students, fraternities, social life of girl students, their conception of education and of the role of women in it and in practical life as physician and lawyer, medical and psychiatric care, feminism, political and religious attitudes, social attitudes toward family and marriage, etc. The reasons for the inquiry: (1) to know as exactly as possible the university life of girl students, (2) to know their wishes, aspirations, ideals, attitudes, (3) to know the influence that the university exercises on their spiritual development, on their mentality and on their professional and social preparation, as well as (4) the necessities and shortcomings of the student's life in general, and (5) to know the difficulties and the troubles that students meet in the university. The questionnaire was answered by 408 girls of all departments. The adaptation of girls in the university is rather successful, though some troubles are present. Academic teaching should be better adapted to girls. Besides special studies, girls want general culture, and especially that part of general culture which helps them to adapt to the special conditions of life to which they are called later.— *N. Margineanu* (Cluj, Rumania).

5966. **Pullias, E. V. Variability in results from new-type achievement tests.** Durham, N. C.: Duke Univ. Press, 1937. Pp. 100. $1.00.—This is a monograph reporting, in some detail, experimental procedures and findings in a study of new-type tests, both teacher-made and standard, given under conditions of normal classroom measurement. Tests for measuring the same educational products resulting from the same materials were constructed by different teachers, to check agreement of results. Correlation technique, percentile placement analysis, teacher-marks disparity and grade-equivalent disparity were used in the comparison of results. Significant variation was found in all of the comparisons made. Correlation coefficients varied from .845 to − .212, with a median of 68 correlations at .54. The mean percentile rank disparity found was 23 percentile points; one tenth of the students had 50 percentile points difference in rank or more. Teachers' marks showed a disparity of as much as three mark-intervals for individual cases, and approximately one mark-interval for the total group. In terms of grade-equivalent scores on standardized tests the mean amount of disparity between results on two tests designed to test the same thing was one school grade. It is concluded that most new-type tests are objective only as to scoring, and that achievement is not consistently measured by different but comparable tests.—*D. Bailey* (Mt. Holyoke).

5967. **Rich, G. J. Safety education as the mental hygienist sees it.** *J. educ. Sociol.*, 1937, **11**, 29–32.—"The real basis of education for safety is the development of wholesome personality. A well-adjusted individual can learn how to prevent accidents. The poorly adjusted one may be given a wealth of instruction and profit not the least from it."—*F. D. McTeer* (Wayne University).

5968. **Romney, G. A study of factors that contribute to the curricular interests of students of the ninth grade with special reference to physical education.** *J. exp. Educ.*, 1937, **5**, 346–355.—In this study ninth grade students were first asked to rank algebra, English, history and physical education from 1 to 4. The subject they liked most they were to rank 1, the subject they liked least 4, then they were to rank the remaining two subjects 2 and 3. The ranking of the subjects by the 429 girls included in the study, from the standpoint of preference, showed that algebra ranked highest, English second, physical education third, and history last. Ranking of the subjects by the 576 boys of the study showed that physical education ranked first, algebra second, history third and English last. Factors underlying the above selection are dealt with in the report under the following headings: (a) Reasons given by the students themselves. (b)

Relationship of sex to subject choice. (c) Relationship of age to subject choice. (d) Relationship of intelligence quotient to subject interest. (e) Relationship of socio-economic status to subject preference.—*H. W. Karn* (Pittsburgh).

5969. **Rosca, A. Orientarea profesionala a anormanilor.** (Vocational guidance of abnormal people.) *Publ. Institt. Psihoteh. Cluj*, 1936. Pp. 102.—A survey of different kinds of abnormal people and of the jobs for which they are fitted. Sensory defects: optic, acoustic, olfactory, etc. A list of jobs which may be chosen by such individuals. Digestive, respiratory, circulatory, glandular and nervous defects. The right jobs for such anomalies. Jobs suitable for individuals suffering from epilepsy and feeble-mindedness. Emotional and dynamic anomalies, psychopathic constitutions, moral insanity, abnormal shyness, sexual abnormality, etc. A list of jobs. Conclusions regarding the value of the vocational guidance of abnormals. It is worth while both to the subjects and to society.—*N. Margineanu* (Cluj, Rumania).

5970. **Rosca, A. Testele educationale.** (Educational tests.) *Satul si Scoala*, 1937, **6**, 262–264.—A survey of educational tests devised in the U. S. A., and a demonstration of the computation of the educational coefficient. The nature, aim and importance of these tests and coefficient are described.—*N. Margineanu* (Cluj, Rumania).

5971. **Scates, D. E. What can research contribute to our understanding of the physically handicapped?** *J. educ. Res.*, 1937, **31**, 20–28.—Analysis of the problem.—*S. W. Fernberger* (Pennsylvania).

5972. **Shellow, S. M. The application of psychological methods to safety education.** *J. educ. Sociol.*, 1937, **11**, 9–18.—"Far greater progress will be made in the field of safety education when those who are responsible for such education apply the psychological principles which have been demonstrated to work in other fields of learning. The use of constructive suggestions, the tying up of the desire for safety with a fundamental motivation, the stress on the perfection of specific safety habits, and the constant and continuous hammering away at accident causes, together with proper methods of preventing them in specific accident situations—all must be utilized to promote safety."—*F. D. McTeer* (Wayne University).

5973. **Snedecor, G. W. Analysis of covariance of statistically controlled grades.** *J. Amer. statist. Ass.*, 1935, **30**, 263–268.—"A series of tests was devised upon which was based an ability score for each student. This ability score is really an estimated grade obtained by the methods of multiple regression. It is used for two purposes; the students are sectioned according to ability and the average grade of each class is required to tally closely with the average ability grade. This constitutes the statistical control now in effect." An analysis of covariance according to the methods of Bartlett and of Fisher was applied to the final grades of fourteen classes in mathematics, statistically controlled as described. In this instance the two methods gave substantially similar results. The variance of estimate (of grade, knowing ability score) is analyzed into portions representing variance between classes, variance between the between-class and the within-class regressions, variance between class regressions, and variance within classes from the individual class regressions. This last is appreciably smaller than the other three.—*E. E. Cureton* (Alabama Polytechnic Institute).

5974. **Sulea-Firu, I. Selectia profesionala a educatorilor.** (Vocational selection of teachers.) *J. Psihoteh.*, 1937, **1**, 106–112.—To be a teacher is a very hard job. Not everybody can be successful. In order to be successful one must have certain abilities. Since candidates for teaching do not always have the consciousness of their real abilities, one must make a psychological examination and plan the vocational guidance on the basis of this examination. The examination concerns intelligence and other intellectual abilities such as observation, memory, attention, thought, then character and certain temperament traits. It also deals with the ability to teach, which may be something distinct from the others.—*N. Margineanu* (Cluj, Rumania).

5975. **Tiegs, E. W. The management of learning in the elementary schools.** New York: Longmans, Green, 1937. Pp. 306. $2.80.—The first need in education today is to make clear specific objectives attainable through each subject, topic and unit of work, and to arrange the curriculum and select material with these in view. Following a brief theoretical discussion the author shows practically how this can be done, illustrating in detail the management of reading, language arts, arithmetic, social studies, music, art, science, industrial arts, and mental and physical health. Each chapter is followed by a list of review questions and a bibliography.—*M. Lee* (Chicago).

5976. **Todoranu, D. Orientarea profesionala academica.** (Academic vocational guidance.) *Indrumari Univ., Cluj*, 1936, **1**, 34–74.—I. General discussion concerning the need and the importance of vocational guidance in the university. II. Academic vocational guidance is based upon the study of students' personality and upon the knowledge of various academic professions. (a) In regard to the study of personality one should know (1) interests, (2) general intelligence, (3) various abilities and talents, (4) temperament and character, (5) organic and psychic constitution, and (6) medical contra-indications concerning the sense defects, debility of lungs, etc. (b) In regard to professions one should have (1) a classification of all academic professions, (2) a monograph on each profession, that is to say the psychological abilities which it requires, the way of living and earning, etc. and (3) the number of vacancies in these professions at the moment and in the near future. Various conclusions are given in regard to the way in which academic vocational guidance is performed at the University

of Cluj, Rumania.—*N. Margineanu* (Cluj, Rumania).

5977. **Todoranu, D. Tehnica muncii intelectuale.** (Technique of mental work.) *Indrumari Univ., Cluj*, 1936, **1**, 77–85.—Scientific management of students' mental work; the best way to do it. I. The best way of (1) attending a lecture and making notes, (2) preparing seminar work and training in laboratory research, (3) organizing extracurricular activity, (4) reading, and (5) distributing and using time rationally. II. Special hints and suggestions in regard to performing theoretical or experimental work. After some definitions concerning the nature of mental work, its best conditions, and the necessary reading, there are discussed (1) choice of the object of study, (2) collection of information, (3) logical classification of this information, (4) experimental verification, and (5) the art of writing and printing. Academic activity is first of all scientific activity. Scientific ideals should always be the basis of academic activity.—*N. Margineanu* (Cluj, Rumania).

5978. **Todoranu, D. Disciplina scolara.** (Discipline in school.) *Satul si Scoala*, 1937, **6**, 146–150.—School organization must pay due attention to children's personality, but it should not forget discipline, since we must live in an organized society based on the notion of order and discipline. One must therefore find a synthesis between individuality and discipline. Various methods of training for discipline are described, with attention to the problem of punishment and reward, which should both be used.—*N. Margineanu* (Cluj, Rumania).

5979. **Valeriu, A. Problema interesului in pedagogia contimporana.** (The problem of interests in contemporary pedagogy.) *Rev. Pedag.*, 1937, **7**, 182–197.—A review of those currents of modern educational psychology and pedagogy which give much credit to interests and believe that education is successful only when based on interests. The contributions of Rousseau, Herbart, and Dewey are mentioned, with an attempt at criticism. Learning is based on interests, but it also involves effort.—*N. Margineanu* (Cluj, Rumania).

5980. **Vartic, M. Sugestii din activitatea psihotehnica scolara.** (Suggestions resulting from a school experiment.) *J. Psihoteh.*, 1937, **1**, 137–139.—Public and high schools ought to have psychological laboratories for the measurement of intelligence and other abilities, as well as for testing personality traits. The author has established such a laboratory and gives the results which have been obtained.—*N. Margineanu* (Cluj, Rumania).

5981. **West, C. H. A simplified prediction experiment.** *J. educ. Res.*, 1937, **31**, 45–48.—An attempt was made to predict, at the end of the first week, the final grade in a course in college algebra with a minimum of statistical treatment. The subjects were 361 students at the University of Wisconsin. The predictive measures used were placement examination marks and high school and psychological test percentile ranks. The author finds that reasonable predictions can be made from this simple method, although he admits that the use of more complicated formulas would yield better results.—*S. W. Fernberger* (Pennsylvania).

5982. **White, W. A. The function of education as viewed from the standpoint of the present world crisis.** *Sigma Xi Quart.*, 1937, **1**, 20–23.—The modern educational system is criticized as being too stereotyped; it should be made more flexible to meet the needs and fit the characters of differing individuals, so as to conserve the curiosities and maintain the eagerness of youth. It is suggested that, to meet the present changed viewpoints regarding economics, science, etc., in the world today, education should proceed by showing the historical development of these viewpoints.—*F. A. Mote, Jr.* (Brown).

5983. **Whitney, F. L. The elements of research.** New York: Prentice-Hall, 1937. Pp. 633. $3.50.—*R. R. Willoughby* (Brown).

5984. **Woods, E. L., & others. A study of the entering B1 children in the Los Angeles city schools.** *J. educ. Res.*, 1937, **31**, 9–19.—The study had two objectives; to contrast teachers' estimates and standardized test results as the basis for placement, and to determine how well the work in reading readiness is actually functioning. The study was made at the end of the school year of 1934–1935 on 6943 children entering grade B1. Mental status was determined by the Detroit first-grade intelligence test. Teachers' estimates and physical condition were recorded. A statistical treatment of the results indicates that the transition program with regard to reading and in general is functioning in this school system. In most cases it was found that the teachers' estimates coincided with the results of the test data.—*S. W. Fernberger* (Pennsylvania).

5985. **Zolog, M., & Comsia, O. Igiena şi igiena sociala a vietii studentesti.** (Hygiene and social hygiene of students' life.) *Indrumari Univ., Cluj*, 1936, **1**, 1–23.—A survey of the hygienic conditions of students' way of living, with special credit due to mental hygiene. Owing to certain economic, social and personality factors certain small psychic troubles usually do occur. They need psychiatric care.—*N. Margineanu* (Cluj, Rumania).

[See also abstracts 5641, 5650, 5697, 5731, 5746, 5788, 5799, 5811, 5816, 5822, 5859, 6049.]

MENTAL TESTS

5986. **Arcan, T. Masurarea inteligentii la adulti.** (The measurement of adult intelligence.) Cluj: Cartea Romaneasca, 1937. Pp. 80.—A series of tests are selected from Binet, Army tests Alpha and Beta, etc., and applied to 335 subjects, mostly illiterate. A scale for the measurement of adult intelligence is constructed.—*N. Margineanu* (Cluj, Rumania).

5987. **Bradway, K. P. Social competence of exceptional children.** *J. except. Child.*, 1937, **4**, 1–8.

—The author reproduces the Vineland social maturity scale devised by E. A. Doll; presents the philosophy behind such a scale, a brief history of the Vineland Scale, and a statement regarding its reliability and validity; and discusses the possible uses which such a scale has.—*L. A. Averill* (Worcester State Teachers College).

5988. **Buros, O. K. Educational, psychological and personality tests of 1936.** *Stud. Educ. Rutgers Univ. Bull.*, 1937, **14**, No. 11. Pp. 141.—This publication is designed to assist test users and technicians in locating available tests. The present work is a non-cumulated number including only tests published in the year 1936 and tests omitted from earlier bibliographies. It gives a bibliography of both tests and books, publishers' directory and index, periodical directory and index, and indexes of tests by titles and authors.—*E. D. Hunt* (Brown).

5989. **Hildreth, G. H., & Pintner, R. P. Manual of directions for Pintner-Paterson performance tests, short scale.** New York: Bureau of Publications, Teachers' College, Columbia Univ., 1937. Pp. 16. $0.50.—Nine of the Pintner-Paterson performance tests are pictured and described in this booklet. These tests are: mare and foal picture board; Seguin form board; five figure board; two figure board; casuist form board; manikin test and feature profile test (two parts); ship test; picture completion test; and cube test. Explicit directions for administering and scoring are included, and a sample record sheet accompanies the manual.—*D. Bailey* (Mt. Holyoke).

5990. **Hsiao, H. H., & Tsung, L. T. [The standardization of mechanical ability tests.]** *Monogr. Psychol. Educ., nat. cent. Univ.*, 1936, **3**, No. 1. Pp. 54.—The Minnesota tests of mechanical ability were administered to 152 Class III boy students (whose ages ranged from 14 to 20 years) from 4 junior high schools in Nanking. The tests adopted were those of space relations (using one set of boards A and B, tested individually), assembly tests (using longer boxes A, B and C, tested individually), and picture tests (using form A, tested in group). Picture tests were also given to 80 more students. The results show that from ages 14 to 18 inclusive the mechanical ability scores increase proportionally with advancing age. The scores correlate low (.08 to .17) with those on school manual work. Hence we should use these standardized tests of mechanical ability rather than the scores on school manual work as a basis for vocational guidance. The mechanical ability scores also correlate low (.01 to .40) with general intellectual ability as measured by Hsiao's tests, indicating that mechanical ability is not closely related to general intelligence. Directions for the use of the tests are appended.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

5991. **Lincoln, H. A study of the Cornell-Coxe performance ability scale with superior children.** *J. genet. Psychol.*, 1937, **50**, 283–292.—Test scores of superior children were secured on the Cornell-Coxe performance ability scale and on the Stanford-Binet test, and an attempt was made to determine the significance of the discrepancies found in some cases. Little correlation was found between the two tests. The performance IQ's gave a higher average than the Binet IQ's and showed greater variability. Deviations of the performance IQ from the IQ ranged from − 26 to + 46, the plus deviations occurring more frequently and giving a higher average than the minus deviations. A larger percentage of plus deviates gave poor attention, a larger percentage of minus deviates good attention, to academic work. A less marked tendency was observed for plus deviates to be socially mature, minus deviates socially immature. When the Cornell-Coxe test is used for superior children 11 years of age or more, there is danger of "running out at the top." The study suggests the possibility that this scale is inadequately standardized at the extremes.—*E. Heidbreder* (Wellesley).

5992. **Rosca, A. Metoda testelor si chestionarelor psihologice.** (Method of tests and questionnaires.) *Satul si Scoala*, 1937, **6**, 140–146.—General discussion concerning the nature and the function of tests and questionnaires in education. A survey of available Rumanian tests is also given. There are tests for intelligence, intellectual abilities such as memory, association, attention, perception, observation, tests for temperament and character, tests for drawing, etc. In regard to temperament and character questionnaires are also to be used.—*N. Margineanu* (Cluj, Rumania).

5993. **South, E. B. An index of periodical literature on testing, 1921–1936.** New York: Psychological Corporation, 1937. Pp. 286. $4.50.—Approximately one fourth of the 5005 entries in this bibliography (planographed from typescript) refer to textbooks, monographs, proceedings, and other non-periodical literature. The compiler attempted to include only the most valuable and pertinent references. A few analytic entries and unpublished theses have been inserted. Entries are arranged in alphabetical sequence by authors and in chronological sequence under each author. The 26-page subject index uses headings grouped under broad rather than specific topics. The 8-page key to abbreviations of periodicals lists only titles.—*O. K. Buros* (Rutgers).

5994. **Tsao, J. C. A note on Porteus maze test.** *Chin. J. Psychol.*, 1937, **1**, 252–264.—A Chinese version of the Porteus maze test (1933 revision) was administered to 184 children in Ting Hsien City, Hopei, whose age ranged from 3 to 13 years. Most of the children obtained a test age lower than their chronological age. The average test quotient is 85.17, the distribution being concentrated at 61–80 intervals. These results are quite different from those obtained by the Test Section of the Bureau of Education of Greater Shanghai (see X: 5171). They used the Vineland revision and found that most of their subjects were much advanced in test age. The discrepancy is probably due to the difference in the socio-economic and educational

standing of the children tested and in the experimenter-subject relationship. . Most likely it is also due to the fact that the Test Section did not strictly follow the standard procedures of testing. The present study also found that Chinese children took on the average more than 15 min., some more than ½ hour to finish the test, although Porteus himself has reported that on the average each subject required about 15 min. The author concluded that contrary to what the Shanghai testers claim, the Porteus maze test cannot be used as an intelligence test for Chinese children unless thoroughly revised and standardized.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

[See also abstracts 5798, 5916, 6025.]

CHILDHOOD AND ADOLESCENCE

5995. **Ackerman, N. W. Constructive and destructive tendencies in children.** *Amer. J. Orthopsychiat.*, 1937, **7**, 301–319.—An experimental play situation is described which may be used for the study of constructive and destructive tendencies in children. An operational definition of "construction" and "destruction" as types of building or breaking toys in the play situation is assumed. Qualitative criteria for appraising performance are described. Usually a correspondence was found between the child's socially constructive and destructive behavior and his performance in this experimental situation, and hope is expressed that the method may be useful as a diagnostic and prognostic aid.—*J. McV. Hunt* (Brown).

5996. **Adcock, A. T. For new parents; a helpful handbook on child training.** *Fmrs' Wife Mag.*, 1937. Pp. 62. $0.25.—Chapters on learning to eat the right food, sleep, toilet training, and clothes are grouped together under physical development; truth, toys and play material for young children, and obedience, punishment, and reward are discussed under social development; and chapters on fear, learning control in anger, and affection comprise the section on emotional development. A few standard references for further reading are given at the end of each chapter.—(Courtesy *Child Develpm. Abstr.*)

5997. **Alschuler, R. H., & others. Two to six; suggestions for parents and teachers of young children.** (Rev. ed.) New York: Morrow, 1937. Pp. 189. $2.00.—*R. R. Willoughby* (Brown).

5998. **Alschuler, R. H., & Heinig, C. Play: the child's response to life.** (*Childhood*, Vol. 2.) Boston: Houghton, Mifflin, 1937. Pp. 256. $19.50 per set, series of five handbooks.—The second volume in the series *Childhood* contains advice to parents on materials for indoor and outdoor play, on play for individual needs, and discussion of many other related subjects.—*R. R. Willoughby* (Brown).

5999. **[Anon.] Proceedings issued by Society for Research in Child Development.** Washington, D.C.: National Research Council, 1937. Pp. 166. $1.00.—This volume contains in full the abstracts and papers presented at the meetings on research studies completed or in progress on a wide range of subjects related to child development. The fields of health, growth, nutrition, dentition, psychology and behavior, and social environment are among those represented.—(Courtesy *Child Develpm. Abstr.*)

6000. **Bacmeister, R. W. Caring for the runabout child; constructive guidance for the active, explorative two-to-six-year-old.** New York: Dutton, 1937. Pp. 263. $2.50.—*R. R. Willoughby* (Brown).

6001. **Barbu, Z. Lumea copilului.** (The world of children.) *Freamatul Scoalei*, 1937, **3**, 147–165.—An introduction to the psychology of children, with special regard to the notion of the world for children, based mainly upon the theories of Uexküll, Stern, Stanley Hall, Piaget, Muchow, Charlotte Bühler, etc. The relation between ego and non-ego and their evolution during childhood are treated.—*N. Margineanu* (Cluj, Rumania).

6002. **Barbu, Z. Ivirea minciunii.** (Lying by children.) *Freamatul Scoalei*, 1937, **3**, 277–292.—In order to evaluate the appearance of lying in children one should distinguish different kinds of lying. Small children begin by lying without consciousness and intention. Such acts can hardly be called lying, which is avoiding the truth with consciousness and intention. It is hard to state when such lies begin. They occur between 2 and 4 years, though seldom, and are rather usual after 4 years.—*N. Margineanu* (Cluj, Rumania).

6003. **Bender, L., & Woltmann, A. G. The use of plastic material as a psychiatric approach to emotional problems in children.** *Amer. J. Orthopsychiat.*, 1937, **7**, 283–300.—This study of child's play with plastic material reveals that the plastic-maturation cycle, like the graphic-maturation cycle, is initiated by sheer love of motor activity. Stages observed are: (1) kneading period—nonspecific treatment, (2) a more integrated rhythmic rolling, comparable to the loop or whirl with graphic material, (3) object representation, where the child's plastic work becomes a means of expressing his fantasy life. No definite intention to create specific objects is always present, but instead, activities based upon motor patterns lead to forms suggesting definite objects which may be elaborated with secondary intent. Plastic material is seen to constitute a suitable medium for expressing aggressiveness, counter-aggression, destruction and construction through which the child may be brought to insight into his created symbols, thereby gaining access to social reality.—*J. McV. Hunt* (Brown).

6004. **Berger, D. Unterschiede der Abstraktionsfähigkeit nach Alter, Geschlecht und Milieu der Schulkinder.** (Age, sex and environmental differences among school children in the ability to form abstract judgments.) *Z. Kinderforsch.*, 1937, **46**, 250–282.—Children were asked to state in writing the differences between fifteen pairs of objects or ideas such as milk and water, a mistake and a lie, etc. Responses were classified according to type of difference mentioned (as color, form, value, etc.) and according to type of response (as tautology, example,

description, etc.). Older children more often than younger ones differentiate in terms of genus, cause, and generalized ideas, while the younger ones refer to external features such as color and form. Sex differences are small. City children more often make their distinctions in terms of values and consequences; rural children more often resort to example and description.—*F. L. Goodenough* (Minnesota).

6005. **Bigelow, M. A. Adolescence: educational and hygienic problems.** (Rev. ed.) New York, London: Funk & Wagnalls, 1937. Pp. 99. $0.35.—*R. R. Willoughby* (Brown).

6006. **Bobrowska, B. [Bringing up children in institutions or adopted families.]** *Zycie Dziecka*, 1935, **4**, 184, 193.—*R. R. Willoughby* (Brown).

6007. **Bologa, L. Factorii gruparilor sociale la copii din epoca prescolara.** (Social grouping in children before attending school.) *Bul. Soc. Psihol. med.*, 1936, **2**, 68–71.—A survey of factors conditioning children's social groupings. According to Russian psychologists these factors depend mainly upon environment. The author believes this environmentalist theory to be mistaken. The factors determining social groupings are mainly psychological. They depend upon the native constitution of personality. We are born to live in society. There is a gregarious instinct.—*N. Margineanu* (Cluj, Rumania).

6008. **Bologa, L. Note de psihologie infantila.** (Contributions to child psychology.) *Bul. Soc. Psihol. med.*, 1937, **3**, 26.—A psychological analysis of the language of a child as it appears from a diary. Stern's observations are verified. Mostly vowels are used, principally *a* and *e*. Among the consonants labials are predominant, especially *t*. An analysis of periods is also attempted. There are first undifferentiated words, single words, two- and three-word propositions, then more complex propositions, and phrases. Brief observations are also made in regard to the relation of language to thought processes.—*N. Margineanu* (Cluj, Rumania).

6009. **Bradley, C. Definition of childhood in psychiatric literature.** *Amer. J. Psychiat.*, 1937, **94**, 33–36.—In the literature reports are given on "children" whose ages range from infancy to 18 or 20 years. It is urged that "for the purpose of psychiatric discussion wherein mental disorder is specifically considered because of its relation to childhood, only individuals of 12 years and under be described as children."—*R. Goldman* (Boston Psychopathic Hospital).

6010. **Burgess, M. A. The construction of two height charts.** *J. Amer. statist. Ass.*, 1937, **32**, 290–310.—60 studies of growth in stature were analyzed by a method based on first, second, and third differences between average heights at successive ages. An elaborate system of cross-checks eliminated or allowed for the effects of inaccuracies in the various studies used. This analysis gave a good approximation to the average height for each age from one to twenty-one. A similar analysis based on a smaller number of studies gave the approximate standard deviation for each age. No evidence for skewness in the distribution of height at any age seemed convincing, so a normal distribution was assumed. Two charts were derived: one for boys and one for girls. The former is shown in the article. In addition to the average curve, the chart has curves for the first, fifth, tenth, twentieth, thirtieth, fortieth, sixtieth, seventieth, eightieth, ninetieth, ninety-fifth, and ninety-ninth percentiles.—*E. E. Cureton* (Alabama Polytechnic Institute).

6011. **Carmichael, L., & Lehner, G. F. J. The development of temperature sensitivity during the fetal period.** *J. genet. Psychol.*, 1937, **50**, 217–227.—The development of temperature sensitivity was studied in 58 guinea pig fetuses of known insemination age, exposed in a thermostatically controlled bath of body-warm physiological salt solution, with placental circulation maintained. Appropriate lights and motion-picture camera with special lens equipment made recording of fetal behavior possible. The study suggests the following tentative conclusions: (1) Temperature stimuli are effective in releasing responses during most of the motile fetal period of the guinea pig. (2) At each of three fetal developmental periods (young, mid, old) the greater the difference between the temperature of the stimulus and the physiological zero of the organism, the greater the relative number of responses released by that stimulus. (3) At the youngest ages studied, there appears to be a slight tendency for cold stimuli to be relatively more effective than warm stimuli if certain assumptions of equality are made concerning units of measurement. (4) During the young period of fetal life there appears to be a development of temperature sensitivity. Sensitivity is greater in the mid period than in the initial period. No corresponding increase occurs during the other periods studied. (5) There is no change in the percentage of specific and general responses released by the stimuli used at any of the three periods, nor does the effective intensity of stimulation change in a definite manner, as development progresses, in its efficacy in releasing either general or specific responses. There is a slight preponderance of specific over general responses, but this finding cannot be considered statistically significant. (6) Some shift occurs in the relative sensitivity of the six areas stimulated (vibrissae area, ear, shoulder, rump, fore-paw, hind-paw). The data may be considered as supporting the generalization that the development of sensitivity spreads from the cephalic to the caudal regions of the body and from the proximal to the distal regions of the limbs.—*E. Heidbreder* (Wellesley).

6012. **Carmichael, L., & Smith, S. M. Response of the fetal guinea pig to pressure stimulation.** (Film.) Rochester, New York: Laboratory of Psychology, University of Rochester, 1937. 1 reel, 200 ft., 16 mm. Purchase price on request.—This film shows the response of the fetal guinea pig to light and heavy pressure stimuli applied by means of calibrated Von Frey esthesiometers. Responses of 35-, 45-, 51-, and 61-day fetuses are shown. The photog-

raphy is such as to show the fetus with high magnification on the screen.—*L. Carmichael* (Rochester).

6013. **Chiba, T. Yôzi no seisin.** (The mind of early childhood.) Tokyo: Tôen-Syobô, 1936. Pp. 319. Yen 2,50.—Besides the results of important investigations in the various fields of mental life of early childhood up to this time, many of the author's own observations are described, which he has tried to explain from his basic attitude of "Eigenbewusstsein."—*T. Chiba* (Sendai).

6014. **Chmielewski, B. Worauf hat der Zahnarzt bei der Behandlung von Kindern zu achten?** (What must the dentist consider in treating children?) Würzburg: Mayr, 1937. Pp. 20.—*R. R. Willoughby* (Brown).

6015. **Ciobanu, A. Problema idealului la copii.** (Children's notion of the ideal.) *Freamatul Scoalei*, 1936, **2**, 361–369.—An analysis of children's ideals, that is to say of their desires, wants, interests, aspirations, etc. An attempt at classification which aims to be genetic is made.—*N. Margineanu* (Cluj, Rumania).

6016. **Deshaies, L. La notion de relation chez l'enfant.** (The idea of relation in the child.) *J. Psychol. norm. path.*, 1937, **34**, 112–135.—Piaget proposes a theory of qualitative development in the evolution of the thought of the child; that is, certain modes of thought present in the young child disappear at subsequent ages and are replaced by other modes of thought equally fitting to the age at which they appear. The author of this article, on the contrary, believes that the thought of the child is qualitatively identical with that of the adult. In considering especially the idea of relation, the author thinks that if one seems to distinguish different stages, it is only because the problems presented to children are often too complicated for their age. It seems to him that a child of a given age who is incapable of seeing the relative character of one notion might well be able to see the relative character of another. To test this hypothesis, he gave to two groups of subjects a number of questions of varying difficulty, all implying the idea of relationship. He concludes that his alternative theory holds while Piaget's theory of qualitative differences does not.—*R. E. Perl* (New York City).

6017. **Ding, E. Der Pavor Nocturnus bei Kindern.** (Night terrors in children.) *Z. Kinderforsch.*, 1937, **46**, 283–296.—A study of 57 cases under fifteen years of age and comparison with other investigations reported in the literature indicates that night terrors are from two to three times more frequent in boys than in girls, and that the peak of frequency comes at about the sixth year of age.—*F. L. Goodenough* (Minnesota).

6018. **Freeman, F. N. A study of twins as a method of investigating nature and nurture.** *J. Amer. statist. Ass.*, 1935, **30**, 269–273.—"Nineteen pairs of identical twins separated in infancy or very early childhood have been studied. The examination lasted approximately two days and included a set of rather detailed physical tests and a battery of mental and educational tests." Three pairs are discussed in some detail. "These are three cases chosen to illustrate the different types of relationship between environment, on the one hand, and ability and personality on the other. These studies indicate a diversity of effect due to the diversity of the conditions."—*E. E. Cureton* (Alabama Polytechnic Institute).

6019. **Friedlander, M. [Youth in the cultural centers in cities.]** *Zycie Dziecka*, 1935, **4**, 1.—*R. R. Willoughby* (Brown).

6020. **Frye, E. K. The mechanical abilities of siblings.** *J. genet. Psychol.*, 1937, **50**, 293–306.—Three tests of mechanical ability (Stenquist assembly test, Series I, Crockett's Detroit manual ability tasks, and O'Connor's wiggly block) were given to 200 siblings of high school age. Correlations between siblings were positive but not marked. The only significant difference between the performances of boys and girls was in the Stenquist test, in which boys excelled. No significant differences were found between successive ages in any test. There is a tendency for both boys and girls to reach their highest efficiency at the ages of 17 and 18. Negligible to fair correlations were found among the tests of mechanical ability. In 14 out of 15 tetrads for girls, conditions were present which would substantiate the two-factor theory; in only 5 out of 15 tetrads for boys were these conditions present.—*E. Heidbreder* (Wellesley).

6021. **Gesell, A. Early evidences of individuality in the human infant.** *Sci. Mon., N. Y.*, 1937, **45**, 217–225.—The cinema records of the first year of life of five normal infants from homes with high average living conditions were analyzed by a trained, unbiased observer. On the basis of films alone she made an estimate of 15 behavior traits and arranged the children in rank order. A direct study was then made of the children (now 5 years old) and a new appraisal of the original traits made. Out of 75 judgments, 48 coincided; 21 showed a displacement to the extent of one rank order; 5 a displacement of two orders; and 1 a displacement of three orders. This exploratory study Gesell believes demonstrates a significant degree of internal consistency in the behavior features of the same children at one and at five years of age. This consistency would seem to rest upon biological characteristicness and suggests that certain fundamental traits of individuality, whatever their origin, exist early, persist late, and assert themselves under varying environmental conditions.—*O. P. Lester* (Buffalo).

6022. **Godley, L. O. Child behavior problems.** *Tex. St. J. Med.*, 1936, **32**, 422.—*R. R. Willoughby* (Brown).

6023. **Hathaway, W. An eye-health program for all the children.** *Publ. Hlth. Nurs.*, 1937, **29**, 229–233.—*R. R. Willoughby* (Brown).

6024. **Herseni, T. Chestionar privitor la gruparile de copii.** (A questionnaire on boys' gangs.) *Social. Roman.*, 1936, **1**, 53–54.—A questionnaire regarding children's gangs. It aims to state the determining

factors of the gang and its main types. Among the determining conditions are: age, sex, neighborhood, leader, etc. There are gangs for play, for stealing fruit, for swimming, singing, etc. The relations between the members of the gang and between the members and leader, the duration of the gangs, when they begin and end, etc., are treated.—*N. Margineanu* (Cluj, Rumania).

6025. **Hofstätter, P. R. Testuntersuchungen an japanischen Kindern und das Reifungsproblem.** (A study of tests of Japanese children and the problem of maturation.) *Z. Kinderforsch.*, 1937, **46**, 71-112.—110 children under the age of three years were given the Bühler Babytests slightly adapted to meet Japanese conditions. It was found that only 7% of the tests required changes; the remaining 93% were given according to the established procedure. The tests were given in an industrial town in northern Korea where most of the inhabitants were Japanese from the island of Kyushu. 91 of the children tested were Japanese, 19 Korean. According to the Bühler standards the average developmental quotient was 106, with no apparent difference between the two racial groups. A detailed analysis of the results for the individual test items is included.—*F. L. Goodenough* (Minnesota).

6026. **Holzinger, K. J. The statistical evaluation of nature and nurture.** *J. Amer. statist. Ass.*, 1935, 30, 274–280.—50 pairs of fraternal twins, 50 pairs of identical twins reared together, and 20 pairs of identical twins reared apart were given a variety of physical and mental tests. Differences in educational, social, and physical environment for the third group were rated by five judges with an aggregate reliability of .90 for each type of environment. Correlations between twin differences in measured traits and estimated environmental differences for this group indicated that "moderate environmental differences produce inappreciable effect upon twin characters, and that relatively great environmental differences must be present to produce noticeable effect upon traits such as here studied." A further analysis based on mean differences and variances of differences in the three groups showed that "The greater the variation in environment, the greater role this factor plays in producing changes in character." Also, "from 75 to 90 per cent of fraternal twin variance is attributable to 'nature' for physical traits. In the case of intelligence the values . . . range from .65 to .80."—*E. E. Cureton* (Alabama Polytechnic Institute).

6027. **Hryniewicz, E. [Problems of youth in Poland after school.]** *Zycie Dziecka*, 1935, **4**, 71.—*R. R. Willoughby* (Brown).

6028. **Hryniewiecki, S. [Scout life and its significance.]** *Zycie Dziecka*, 1935, **4**, 8.—*R. R. Willoughby* (Brown).

6029. **Hsiao, E. C. [Child psychology.]** Shanghai: Commercial Press, 1936. Pp. 122. $0.80 mex.—This book consists of 14 chapters and discusses the origin of life; heredity; the sexes; the physical development of the child; the physiological foundations of behavior; instincts and habits; the progress of the child's life; the plays, language and drawings, perception and memory and imagination, thought, intelligence, morality and delinquency of the child. The discussion has embodied much of the recent teachings in biology, physiology, and mental testing.—*C. F. Wu* (Nat. Res. Inst. Psychol., Acad. Sinica, Nanking).

6030. **Iancu, A. Cele doua automatisme de baza ale sufletului copilului.** (Two basic automatisms in the behavior of children.) *Freamatul Scoalei*, 1937, **3**, 1–5.—Relations between body and mind. The importance of nutrition as a main factor in the normality of mind. We feel as we eat; this is true especially in the case of children. In order to insure a normal development of children's personality we must feed them rationally. One should never force children to eat, lest pathological anomalies be developed.—*N. Margineanu* (Cluj, Rumania).

6031. **Iancu, A., & Spanu, N. Studiu asupra determinarii "cercului de reprezentari" la copii.** (Studies concerning children's stocks of ideas.) *Bul. Soc. Psihol. med.*, 1936, **2**, 22–29.—An attempt to diagnose children's knowledge by a questionnaire similar to those of Binet, Nietschajeff, Pullmann, Hartmann, etc. The questionnaire items can be grouped in 20 classes, according to their object. They concern domestic animals, wild animals, vegetables, plants, trees, minerals, metals, instruments used in the house and kitchen, parts of the body, elementary geography and history, elementary religious notions, etc.—*N. Margineanu* (Cluj, Rumania).

6032. **Karn, M. N. Summary of results of investigations into the height and weight of children of the British working classes during the last hundred years.** *Ann. Eugen., Camb.*, 1937, **7**, 376–397.—*J. W. Dunlap* (Rochester).

6033. **Körperth-Tippel, A. [Child and picture.]** Vienna: Deutscher Verlag für Jugend und Volk, n.d. Pp. 126.—This study was made under the direction of Charlotte Bühler at the Psychological Institute of the University of Vienna. It investigated experimentally the question at what age children of 3 to 14 years are able to distinguish pictures of artistic merit from those which have no artistic value. The following results were obtained: It is possible to detect rudiments of esthetic appreciation even among the youngest subjects used in this study. However, the predominating attitude of children of 3 to 4 years is "extra-esthetic." Not until the tenth year does the esthetic attitude begin to dominate. With children under the age of 8 years the attention is focused primarily on the object of the picture. The eleventh year marks the transition to a preference for esthetic pictures. In almost every instance the 14-year-old will select the artistic picture. This study has practical value for the manufacture and the selection of toys for children, especially the making of picture books.—(Courtesy *Child Develpm. Abstr.*)

6034. **Kuo, Z. Y., & Carmichael, L. The development of behavior in the chick embryo.** (Film.) Rochester, New York: Laboratory of Psychology, University of Rochester, 1937. 1 reel, 420 ft., 16 mm. Purchase price on request.—This film shows the behavior of the chick as observed through the shell membrane, made transparent by the Kuo technique. The period prior to somatic motility, when heart beat alone is observed, begins the film. Following this, sequences are shown at each typical stage up to and including hatching behavior and the behavior of the newly hatched chick. The film includes, for comparison purposes, still pictures of the external appearance of the chick embryo at typical stages.—*L. Carmichael* (Rochester).

6035. **Leahy, A. M. A study of adopted children as a method of investigating nature-nurture.** *J. Amer. statist. Ass.*, 1935, **30**, 281–287.—194 adopted children were matched with a control group of 194 own children. All children were white, non-Jewish, of north-European extraction, 5 to 14 years old at the time of the investigation, and reared in communities of 1000 or more (95% in communities of over 10,000). All adopted children were placed in their foster homes before the age of six months. An attempt was made to sample all occupational levels equally. Matching procedure required agreement as to sex, age (± 6 months), fathers' occupation (same group on Minnesota scale), and educational level of each parent (± one grade level). The distributions of ages, school grades, and IQ's were substantially identical, except that the adopted children's IQ's were less variable. Correlations between child's IQ and various indices of the cultural status of the home averaged .18 for the adopted children and .51 for the control children. The former figure agrees with Burks' figure and disagrees with Freeman's.—*E. E. Cureton* (Alabama Polytechnic Institute.)

6036. **Lumpkin, K. D., & Douglas, D. W. Child workers in America.** New York: McBride, 1937. Pp. 321. $3.50.—This is a comprehensive statement of the economic, sociological, and psychological case against child labor and the forces that perpetuate it. Data and case illustrations are drawn freely from child-labor studies made in the past by the authors and by others. The extent and working conditions of child labor in various occupations are examined in Part I. In Part II, studies of the general intelligence of child workers are given a critical analysis, from which the conclusion is drawn that "children at the lower end of the economic scale cannot show as good a rating as their more advantaged fellows, in part at least, because their socio-economic environment is so unequal." Part III of the book is concerned with prospects for controlling child labor, and includes an analysis of the motives underlying opposition to control.—(Courtesy *Child Develpm. Abstr.*)

6037. **Mauco, G. La psychologie de l'enfant dans ses rapports avec la psychologie de l'inconscient (d'après les travaux de Freud et de Piaget).** (The psychology of the child in its relation to the psychology of the unconscious, according to the works of Freud and Piaget.) *Rev. franç. Psychanal.*, 1936, **9**, 430–517.—The author attempts to make clear the analogies which frequently arise between the observations of genetic psychology and the concepts of psychoanalysis. He points out the differences between the methods of Freud and Piaget and, under the headings of "the general traits of the thought of the child and unconscious thought" and "the representation of the world in the child and in unconscious thought," begins the discussion of the analogies which he finds. The paper is to be continued.—*F. G. Allen* (Brown).

6038. **Morgenstern, S. Das magische Denken beim Kinde.** (The child's magical thinking.) *Z. psychoanal. Pädag.*, 1937, **11**, 102–118.—See VIII: 5711.—*H. Beaumont* (Kentucky).

6039. **Mumford, E. E. R. Understanding our children.** New York: Longmans, 1937. Pp. 243. $1.75.—*R. R. Willoughby* (Brown).

6040. **Navarra, I. [Musical recitals for children.]** *Bol. Inst. int. amer. Prot. Infanc.*, 1936, **9**, 466.—*R. R. Willoughby* (Brown).

6041. **Ohwaki, Y., & Tatibana, Y. Zidô-sinri.** (Psychology of childhood.) Tokyo: Sobunkaku, 1936. Pp. 186.— *Y. Ohwaki* (Sendai).

6042. **Otasiro, M. Hattatu-sinrigaku.** (Psychology of development.) Tokyo: Tôen-Syobô, 1937. Pp. 239. Yen 2,50.—The author considers facts and laws of mental development according to the theories of many investigators.—*T. Chiba* (Sendai).

6043. **Peiper, A. Sinnesphysiologie und Hirntätigkeit.** (Sense physiology and brain activity.) *Mschr. Kinderheilk.*, 1937, **69**, 327–335.—Review of the experimental literature on responses of newborn infants to sensory stimulation.—*F. L. Goodenough* (Minnesota).

6044. **Pisula, C. Behavior problems of children from high and low socio-economic groups.** *Ment. Hyg., N. Y.*, 1937, **21**, 452–455.—A study to investigate the characteristic behavior difficulties of children of the higher socio-economic group. 50 case histories of children from "comfortable" homes were selected from the files of the Washington Child Guidance Clinic, and compared with a control group of 50 children from "dependent" homes selected from the same source. The comparisons were made on the basis of habit problems, aggressive personality problems, submissive personality problems, and educational difficulties. Some of the outstanding differences were that the children from more comfortable homes showed about an equal number of faulty-habit problems, fewer problems based on aggressive traits, more problems based on submissive traits, and more school maladjustment.—*P. Brand* (New York City).

6045. **Redfield, J. E. A preliminary report of dark adaptation in young infants.** *Child Develpm.*, 1937, **8**, 263–269.—In this experiment dark adaptations of 47 infants ranging in age from 7 to 9 days were observed on 200 occasions, 50 at each of four

different periods of adaptation. Each experiment consisted of one minute of an adapting light (47 foot candles), a period of complete darkness for one, five, ten, or twenty minutes, and then five minutes of the control light (1.5 foot candles). "The measure of response used was the number of active seconds per minute during the control light period as recorded by means of an electric stabilimeter and polygraph." "It is shown that bodily activity decreases following lengthened periods of dark adaptation, but in no case has statistical significance been obtained between activity levels."—*F. D. McTeer* (Wayne).

6046. **Richey, H. G. The relation of accelerated, normal and retarded puberty to the height and weight of school children.** *Monogr. Soc. Res. Child Develpm.*, 1937, No. 8, 1–67.—Anthropometrical data on 1871 girls, ages 6 to 17 years, and on 1884 boys, ages 6 to 18 years, who attended the Laboratory Schools of the University of Chicago were analyzed to compare rates of growth, weights, heights and height-weight relationships. The subjects were divided into 3 maturity groups on the basis of objective criteria. General conclusions were: (1) Differences in the height-weight relationship suggested differences in the bodily build of the three groups. (2) Statements concerning overweight or underweight should not neglect consideration of the maturity factor. (3) "Growth as measured by height and weight is slightly accelerated before puberty." (4) No significant differences were found in the heights of different female maturity groups after 15 years or in those of the different male maturity groups after 17 years. (5) Girls maturing before 13 years of age were, as a group, heavier at each age from 6 to 17 years than those who matured later, while those who matured between their 13th and 14th birthdays were heavier at all ages than those who matured after their 14th birthdays. (6) Boys who matured before their 14th birthdays were heavier than those who matured later, while those who matured between the 14th and 15th birthdays were heavier at all ages than those who matured after their 15th birthdays. (7) Girls and boys who matured earlier were taller than those who matured later.—*P. S. de Q. Cabot* (Simmons).

6047. **Richmond, W. The exceptional child and the family constellation.** *Child Res. Clin. Ser.*, 1937, 2, No. 5, 1–17.—This is a consideration of the concept of the family in general, the place of the child in the family, and his development in relation to his parents, brothers and sisters. Several case histories are given of children who, by reason of physical or other defects, have been forced into the role of the exceptional child in the family. The author calls attention to the fact that medicine and psychology are prepared to help the average family assimilate the exceptional child.—*F. G. Allen* (Brown).

6048. **Ritterskampf, L. The first interview as a guide to treatment.** *Smith Coll. Stud. soc. Work*, 1937, 8, 34–84.—First interview with parents and sources of refusal are reliable indications of outcome of treatment at the Worcester (Mass.) Child Guidance Clinic. Treatment was most successful when guided by the first interview with parents.—*R. H. Brown* (Clark).

6049. **Santanelli, E. Orientamento e continuità professionale in rapporto alla pubertà.** (Vocational selection and progress in relation to adolescence.) *Riv. Psicol.*, 1937, **33**, 102–109.—The author discusses the factors that affect the subject directly and indirectly in determining his choice of vocation. He distinguishes hereditary and biological factors, as well as imitative, suggestive and other environmental ones. He examines also the causes for change of, or lack of interest in a chosen vocation among adolescents between 15 and 20 years old. The more morbid manifestations of behavior occurring in adolescence are also considered, particularly those that influence character, temperament and intelligence. The author points out the frequent lack of relationship between physiological maturity for work and psychological development of the subject.—*T. M. Abel* (Trade Extension Classes, New York).

6050. **Schaecter-Nancy, M. Le signe de Chvostek dans l'enfance et le profil mental des enfants porteurs de ce signe.** (Chvostek's sign in childhood and the mental profile of children with this sign.) *Z. Kinderpsychiat.*, 1937, **4**, 1–7.—*D. Shakow* (Worcester State Hospital).

6051. **Schumacher, H. C. Some behavior problems met with in pediatric practice.** *Med. Rec., N. Y.*, 1937, **146**, 116–119.—Discussion of behavior problems in children is given from the psychobiological position that such problems arise from defects in the genes, the milieu which the child must master and the long period of development occasioning many interruptions, alterations and changes. Feeding problems, sleep disturbances, thumb-sucking, nail-biting, enuresis, masturbation, mental retardation and convalescence from illness are all treated with attention to the various psychobiological causes for these difficulties.—*M. H. Erickson* (Eloise Hospital).

6052. **Siegel, M. Portrait of Barbara.** Chicago: Willett, Clark, 1937. Pp. 178. $1.50.—A father wrote this week-by-week diary of his daughter during her first year.—*R. R. Willoughby* (Brown).

6053. **Snyder, F. F., & Rosenfeld, M. Direct observation of intrauterine respiratory movements of the fetus and the role of carbon dioxide and oxygen in their regulation.** *Amer. J. Physiol.*, 1937, **119**, 153–166.—Labor was inhibited by the injection of pregnancy urine extract on the 25th day of pregnancy and the cord was sectioned at the second lumbar level in rabbits. The abdomen was incised and the uterus allowed to escape but to remain submerged in Ringer so that fetus movements were observable. The fetus of the rabbit shows rhythmic respiratory movements. These depend on blood O_2 and CO_2, but differ in some respects from those of adults. Oxygen want depresses fetal respiration, an indication that

the carotid body mechanism is not functioning. A certain level of CO_2 is necessary for respiration; more has little effect, and a deficit causes depression. A faster rate was found in postmature than in premature fetuses, and finally fetal respiration may be abolished by narcosis which does not impair the maternal respiration.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

6054. **Sonohara, T. Shinseiji ni kansuru shinrigakuteki kenkyû.** (Psychological researches on the new-born child.) *Jap. J. exp. Psychol.*, 1937, **4**, 35–54.—A bibliographical summary.—*R. Kuroda* (Keijo).

6055. **Sonohara, T. Nyûji kyûtetsu undô ni kansuru kôsatsu.** (On sucking movements of nursing babies.) *Jap. J. exp. Psychol.*, 1937, **4**, 55–62.—A bibliographical study.—*R. Kuroda* (Keijo).

6056. **Sturt, M., & Oakden, E. C. Modern psychology and education.** London: Kegan Paul, 1937. Pp. xi + 307. 7/6 net.—A textbook addressed to students in training colleges and in adult evening classes. This is the eighth edition, fully revised and reset. The book discusses all the main problems of the psychology of education, with much original illustration, problems following each chapter, and many suggestions for further reading.—*F. C. Bartlett* (Cambridge, England).

6057. **Susukita, T. Untersuchung über die Lügen der Schulkinder.** (Investigation of lying among school children.) *Tohoku psychol. Fol.*, 1936, **4**, 51–70.—*T. Chiba* (Sendai).

6058. **Thom, D. A. Child management.** (Rev. ed.) *U. S. Child. Bur. Publ.*, 1937, No. 143. Pp. 107.—This edition has been revised by the author, who is director of the Habit Clinic for Child Guidance of Boston and director of the Division of Mental Hygiene in the Department of Mental Diseases of Massachusetts, to include some discussion of the psychological background of child training and guidance, as well as additional material on specific problems, such as independence, rewards and punishments, stuttering, selfishness, and self-deception. An introductory section on mental attitudes points out that "in many instances, back of undesirable conduct on the part of a child are crippling emotional attitudes in connection with important relationships of life; and it is these rather than the conduct disorder in itself which are of basic importance for the development of the child's personality." Three new sections at the end deal with the role of intelligence, the child during sickness and convalescence, and the mentally defective child as a family problem.—(Courtesy *Child Develpm. Abstr.*)

6059. **Thorburn, M. Child at play.** London: Allen & Unwin, 1937. Pp. 187. 6/– net.—This is an individual and detailed study of the play development of Mary, the daughter of the author, during the first four years of her life. A particularly meticulous record is presented of the period from three years two months to three years five months. Notes are added concerning playthings spontaneously used and concerning the uses which may be made of studies of this kind by the student of child life.—*F. C. Bartlett* (Cambridge, England).

6060. **Vollmer, H. The grandmother: a problem in child-rearing.** *Amer. J. Orthopsychiat.*, 1937, **7**, 378–382.—*E. D. Hunt* (Brown).

6061. **Watson, J. B. Experimental investigation of babies.** (Film.) Chicago: Stoelting, 1919. 480 feet, 16 mm. $45.00 sale.—This silent picture, which is of both historical and experimental importance, gives a graphic account of the development of reflexes and instincts in infancy. Items exhibited include the grasping and Babinski reflexes, defensive movements to pinching, blinking, orientation to lights, absence of swimming movements, reaching, crawling, and some basic emotional reactions.—*L. F. Beck* (Oregon).

6062. **Weber, A. Zur Entwicklung der weiblichen Sexualität in der frühen Kindheit.** (The development of feminine sexuality in early childhood.) *Nervenarzt*, 1936, **9**, 615.—*P. L. Krieger* (Leipzig).

6063. **Wilson, F. T., & Flemming, C. W. Correlations of perception with other abilities and traits in grade I.** *Child Develpm.*, 1937, **8**, 223–240.—"Averages for 25 grade one children showed that statistically the memory span for digits was longer than those for familiar words, nonsense syllables and mixed syllables. After two and one-half years the digit span remained the longest on retests. The span for letters was almost as long as that for digits for grade one children, and for grade three children was reliably longer than the span for nonsense syllables." "The differences in size of the averages of the correlations of various types of memory span tests with other tests" of reading ability, intelligence, perception, perseveration, steadiness, and tapping "do not have great statistical significance, since the probable errors of the correlations from which the averages were obtained were relatively high."—*F. D. McTeer* (Wayne).

[See also abstracts 5567, 5568, 5575, 5638, 5648, 5663, 5689, 5691, 5760, 5768, 5799, 5838, 5897, 5903, 5936, 5948, 5961.]

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